ATHLETIC JOURNAL

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Hand-to-Hand Combat

Wesley Brown, Lieutenant (j.g.) U. S. N. R.
Joseph Begala, Lieutenant (j.g.) U. S. N. R.

Tournament Time Coming Up!

Everett S. Dean
A. F. Ruggs
John Lawther
Douglas Mills
Forrest C. Allen

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SPOTBILT *Continues*

The Roster of Coaches in Service

★ BACCUS, F. C., Lieut., Navy.
Basketball Coach, Southern Methodist University.

★ BAKER, DR. EDWARD, Lieut. (j.g.), Navy.
Head Football Coach, Carnegie Tech.

★ BARDO, ED, Lieut., Navy.
Swimming Coach, University of Maryland.

★ BARTELMA, DAVID, Lieut., Navy.
Wrestling Coach, University of Minnesota.

★ BEGALA, J. W., Lieut. (j.g.), Navy.
Wrestling Coach, Kent State University.

★ BESCOS, JULIUS, Lieut., Navy.
Basketball Coach, University of Southern California.

★ BROWN, WESLEY, Lieut. (j.g.), Navy.
Wrestling Coach, Northwestern University.

★ CAMPBELL, DUFFIELD T., Lieut. (j.g.), Navy.
Baseball Coach, University of Alabama.

★ CHALMERS, GORDON C., Lieut. (j.g.), Navy.
Swimming Coach, Lehigh University.

★ CUNNINGHAM, HAROLD B., Lieut., Navy.
Basketball Coach, Washington & Lee University.

★ DEETER, ISAAC, Lieut., Navy.
Boxing Coach, Washington State College.

★ DIXON, J. V., Lieut., Navy.
Boxing Coach, Oregon State College.

★ FOSTER, W. F., Lieut., Navy.
Swimming Coach, Southern Methodist University.

★ GIBBINGS, TOM, Captain, Army Air Forces.
Track Coach, University of Arizona.

★ GULLION, BLAIR, Major, Army.
Basketball Coach, Cornell University.

★ HAGERTY, JOHN, Lieut. (j.g.), Navy.
Football Coach, Georgetown University.

★ HAGGERTY, THOMAS J., Lieut. Colonel, Army.
Basketball Coach, De Paul University.

★ KAROW, MARTY, Lieut., Navy.
Basketball Coach, Texas A. & M.

★ KEEN, CLIFFORD, Lieut., Navy.
Wrestling Coach, University of Michigan.

★ McCOY, ALFRED M., Lieut., Navy.
Assistant Football Coach, Harvard University.

★ MAHONEY, WILLIAM P., Ensign, Navy.
Track Coach, University of Notre Dame.

★ MITCHELL, ELMER, Lieut. Comdr., Navy.
Intramural Director, University of Michigan.

★ MOSELEY, FRANK O., Lieut., Navy.
Baseball and Boxing Coach, University of Kentucky.

★ NORGREN, NELS, Captain, Army.
Basketball Coach, University of Chicago.

★ PRICE, HARTLEY, Lieut., Navy.
Gymnastics Coach, University of Illinois.

★ QUINN, MOSE, Lieut., Navy.
Baseball Coach, Cornell University.

★ RABENHORST, H. A., Lieut., Navy.
Basketball Coach, Louisiana State University.

★ RAESE, RICHARD A., Lieut. (j.g.), Navy.
Basketball Coach, West Virginia University.

★ ROLLINS, JOHN W., Captain, Army.
Track Coach, Texas A. & M.

★ SNYDER, LARRY, Lieut. Comdr., Navy.
Track Coach, Ohio State University.

★ SPEIDEL, CHARLES MARTIN, Lieut., Navy.
Wrestling Coach, Pennsylvania State College.

★ SPORTSMAN, CHARLES, Lieut., Navy.
Track Coach, North Texas State College.

★ THOMPSON, JESS E., Lieut., Navy.
Director of Athletics, Cameron State College.

★ VOGEL, OTTO, Lieut., Navy.
Baseball Coach, University of Iowa.

★ VOIGHTS, BOB, Ensign, Navy.
Assistant Football Coach, Yale University.

★ WALKER, JAMES, Lieut., Navy.
Basketball Coach, Virginia Military Institute.

★ WALTER, RUSSELL, Lieut., Navy.
Assistant Track Coach, Northwestern University.

★ WARD, DALLAS, Lieut., Navy.
Assistant Football Coach, University of Minnesota.

★ WARREN, ROBERT S., Lieut., Navy.
Basketball Coach, North Carolina State College.

★ WATERS, EARLE C., Lieut., Navy.
Track, Gymnastics & Soccer Coach, West Chester S.T.C.

★ WERNER, CHARLES DUNLAP, Lieut., Navy.
Track Coach, Pennsylvania State College.

★ WILLIAMS, ROLLIE, Lieut., Navy.
Basketball Coach, University of Iowa.

★ YARBRO, DAN, Ensign, Navy.
Basketball Coach, North Texas State Teachers College.

★ ZITRIDES, GREGORY, Ensign, Navy.
Assistant Football Coach, Cornell University.

This roster represents a partial list of coaches now in the service. The first of this list appeared in the January, 1943, issue. Additional names will be printed in subsequent issues. Witchell-Sheill Company, 1635 Augusta Boulevard, Chicago.

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Series A—1, 2
The proper and effective method of applying a lock stranglehold from the rear.

Hand-to-Hand Combat

By Wesley Brown, Lieutenant (j.g.), U.S.N.R.
Hand-to-Hand Instructor, United States Navy Pre-Flight School, Iowa City, Iowa
Formerly, Wrestling Coach, Northwestern University
and
By Joseph Begala, Lieutenant (j.g.), U.S.N.R.
Hand-to-Hand Instructor, United States Navy Pre-Flight School, Athens, Georgia
Formerly, Wrestling Coach, Kent State University

HAND-TO-HAND Fighting in Egypt, Hand-to-Hand Fighting in the Streets of Stalingrad, Hand-to-Hand Fighting in the Solomons. These and other similar phrases recently appeared in the headlines of newspaper stories. In the final analysis, battles are won eventually in close hand-to-hand struggles. It is agreed that all hand-to-hand combat does not actually involve close physical struggle, but the term *hand-to-hand* is often employed when adversaries are close enough to each other, that hand grenades and small hand weapons come into play. There are times, nevertheless, when actual hand-to-hand encounters play an important part in the life and death roles of the fighting man. It is in this phase of human struggle for survival that we are interested, that is, when the fighting man must depend on his strength, slyness, alertness, courage and ability, if he expects to come out alive.

History tells us, as recently as a few weeks ago, battles were won in Malay, the Philippines, Burma and Russia by the use of infiltration tactics, where small groups of men were able to undertake missions of greatest importance in which actual hand-to-hand fighting resulted. The well-known commando raids of the British clearly illustrate the value of a knowledge of hand-to-hand combat. Methods of overcoming the enemy by surprise, quick and efficient killing technique, ways and means of capturing prisoners and the ability to escape from almost every type of seemingly insurmountable obstacles are some of the things a student of hand-to-hand combat is taught. Now the fighting man has a fighting chance for his life which he did not have before. He cannot be considered an effective man of war, until he can meet all the emergencies which may arise in battle. He should be able to take a bridge-head, or beach-head and should more than hold his own in street, house-to-house, or jungle fighting.

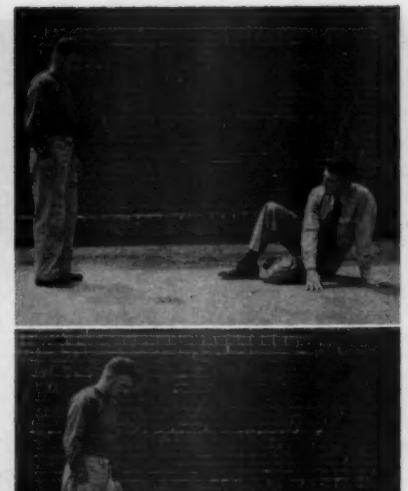
Hand-to-hand combat is a scientific method of close-in fighting. It does not embody anything mysterious but is based upon facts. Each element has been tested. Nothing is left to chance. All trick and ineffective maneuvers are completely disregarded. The popular conception that hand-to-hand combat is in effect, jiu jitsu, is far from the truth and even approaches the fantastic. Some effective maneuvers are taken from jiu jitsu and incorporated into this style of combat, but jiu jitsu, to be used as an effective means of physical combat in a life and death struggle, would be of as little use as ordinary catch-as-catch-can wrestling. Jiu jitsu is Japanese wrestling. It has the same relationship to Japan as Graeco-Roman wrestling has to Europe and catch-as-catch-can wrestling has to the United States. Naturally, the Japanese have tried to build up a mysticism around it, setting up "degrees," brown and black belts, and using weird and mysterious terms which, after all, were expressed in simple English language when it was being taught in America. As a matter of fact, the Japanese cannot even claim it as a native-born sport. They took it from the Lama Monks of China, who, when travelling through wild and desolate territory unarmed, needed a means of self-protection against thieves and robbers.

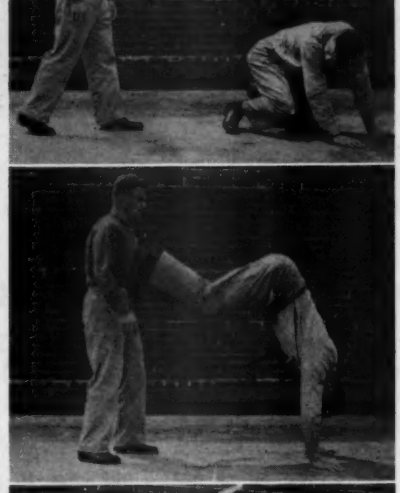
Actually hand-to-hand combat cannot be classified as something new in combative tactics for it embodies elements from

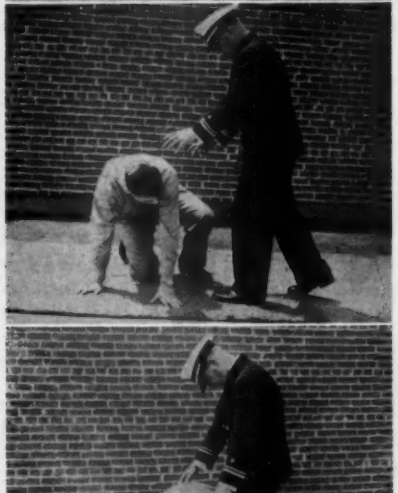
Series B—1, 2, 3
Breaking a rear stranglehold with a double reverse wristlock.

Series C—1, 2, 3, 4, 5

Deck maneuvers against assailant approaching to kick or jump. Illustrations 1, 2, 3 show the mule kick, the defender turning his back on the assailant, bringing him in close for a kick to the face, chest or groin. In 4 and 5 the defender falls heavily against the







Series C—1, 2, 3, 4, 5

assailant's knee, forcing him back to the deck.

Series D—1, 2, 3

The illustrations show a break from a double grip on the wrist, and demonstrate an application of leverage principles, so that violent struggle against a hold, such as shown, is not necessary. Note that pressure is applied against the thumbs, pressure against the joint being fundamental in hand-to-hand maneuvers.

Series E—1, 2, 3

Shown here is one of the many disarming maneuvers against a pistol in the shoulder holster. Steady pressure may be applied at the elbow to prevent drawing of the pistol, or by securing the elbow and wrist, drawing action may be accelerated and controlled, to slap the gun in assailant's face as it comes from the holster.

Series F—1

wrestling, boxing, savate, fencing, football and jiu jitsu which have been in use for hundreds, or even thousands, of years. Only the tactics which are most advantageous in this vicious form of fighting are used. For example, it is well known that certain holds and combinations of holds are dangerous and have been barred from the sport. Since these tactics are desirable for hand-to-hand combat, they have been incorporated. The double wrist lock with a simple twist can be changed to a vicious twisting hammer lock which will result in a fracture or dislocation of the elbow or shoulder. In a like manner, other combinations varying slightly, become very effective combat maneuvers. Blows banned from boxing, such as the rabbit punch and the kidney blows are incorporated into hand-to-hand. The illegal kicks from Frence savate, to the groin for example, are used. Foul fencing tactics, illegal football maneuvers (clipping) and some trips and throws from jiu jitsu are also used to their best advantage. Foul or unsportsmanlike tactics are employed, such as the knee into the face, groin or kidneys, kicking with the feet to all vulnerable body areas and the grasping of vital areas with the hands; in fact, any tactic which might be used to overcome, subdue or kill an opponent is used. There is nothing fair about hand-to-hand; it is not pleasant to think about; the rules of sportsmanship are forgotten, for it is kill or be killed. American sportsmanship is often expressed in these words, "It matters not if you won or lost, but *how* you played the game." In warfare, it is well to forget that statement and add, "No one can be a loser."

With a knowledge of hand-to-hand combat, a big powerful man becomes the most vicious fighter in the world, and even the smallest individual can use it to his advantage. As in other sports, in order to become proficient, constant practice is necessary. It is not difficult to learn, however, simply because it is something en-

Series F—2, 3, 4

Two principles are demonstrated here, the effectiveness of pressure application on the wrist, combined with a duality of quick movements, snap and reverse. A powerful man may resist pressure on the wrist. He may then be controlled by a quick jerk forward, throwing him off balance, or by a reversing action forcing his arm back and up, thus placing crippling pressure on the wrist, elbow and shoulder.

Series G—1, 2, 3

This basic wrestling hold may be worked from any position, standing or lying, from front or behind. Illustrated is a grasp at the legs, countered by application of an orthodox double wristlock, converted to an illegal twisting hammerlock, pressing the arm up and back, and sending the assailant to the ground. Reports from Guadalcanal attest to the particular efficacy of this maneuver.

Series H—1, 2, 3

Shown here are two different counters to an attack with a club. Fundamental in all defenses against attack with a club is the defender's first move, a quick step *into* the attack, so that the club may be deflected, or the blow may pass over the head. In the first two illustrations, the defender steps in and deflects the blow by a sharp movement up and against the inside of the assailant's

Series H—4, 5, 6

club arm. This simple and effective movement, not only breaks the blow, but places the defender in a position for a follow-up frontal attack on the opponent. The following illustrations of this series demonstrate the technique of crossing arms to block the blow, stepping in and securing the assailant's arm with the crossed arms for a flying mare throw, still retaining the elbow lock on the opponent's arm.

Series I—1, 2, 3

Series I—4, 5, 6

tirely new to the majority of men. They have not built up any ideas which may be wrong as to its application, and thus do not have to begin learning over again to do it the correct way. It is, however, a most formalized activity. Tactics and maneuvers must be learned and done correctly. There cannot be any second chances. In football, the coach will instruct his men to make proper tackles. In a game, the player sometimes completely disregards his coach's advice, but brings his man down. Hand-to-hand combat tactics must be performed correctly the first time, because the life of the combatant may depend on his ability to do the job well.

It is the main objective of an extensive course in hand-to-hand combat to make a man proficient in all types of close physical encounters, whether he be armed or unarmed. If the lives of one-half of a group of men can be saved by their ability to use this form of combat, such fighting is a success, for a lack of knowledge might result in a complete annihilation of the entire group. In other words, our fighting men are given an additional means by which they may survive battle, this being of primary importance as it is the desire to save the lives of as many as is humanly possible.

In hand-to-hand combat, the fighting man begins to realize what powerful weapons he possesses within his own body, when he is unarmed. He learns to use his fingers, hands, elbows, legs and feet in all types of attack and defense. He also discovers that the human body, too, has many vulnerable areas. If unarmed he can attack his adversary in the eyes, the face, the neck, the solar plexus, the groin, the kidneys, the spine, the ribs, the legs and other vulnerable areas by any of his natural weapons.

Later he becomes proficient in the use of weapons such as the knife, the dagger, the club, the pistol and learns how to protect himself against them all, when in the hands of an enemy. He learns how best to kill an enemy silently and quickly with a knife or dagger; to disarm an enemy who has a pistol pointed at his head or body; to escape from a bayonetted or unbayonetted rifle; to escape and parry a bayonet thrust; to completely incapacitate an opponent regardless of the situation.

In the United States navy pre-flight schools all the various maneuvers, illegal holds and blows are taught to the cadets in the form of drills which resemble combative conditions. The instructors conduct the drills in the same manner as they

This disarming maneuver, like many other maneuvers in hand-to-hand combat, may be of slight practicability in school and college training programs. If that is so, the school and college programs may still serve conspicuously in the teaching of the realism inherent in hand-to-hand through the medium of their wrestling and boxing classes, by pointing out, in those activities, the crippling features which are, of course, illegal when confined to orthodox boxing or wrestling. Those illegal features, however, are the essence of hand-to-hand, bespeaking that training's grim purpose in life-and-death competitions where there are no niceties of fair play and sportsmanship. In the maneuver illustrated the defender's first motion, faster than the assailant can react, deflects the possible line of fire from the rifle. The weapon is secured and twisted left, then quickly reversed with the hip as a fulcrum. The gun may be snapped from the assailant's grasp or the butt may be swung all the way and slapped in the assailant's face.

Series J—1, 2, 3

The side of the hand, one of the most effective of natural weapons, is typical of Japanese judo. Judo experts toughen the knife edge of the hand by constant exercise, forming callouses, and blows with the side of the hand can break boards. Illustrations show crippling or killing possibilities of the blow on (1) throat, (2) side neck, against carotoid artery and vegas nerve endings, (3) solar plexus, (4) back of neck, (5) upper lip, and (6) bridge of nose.

Series J—4, 5, 6

IN Series A, Lieutenant Brown is the defender and Ensign Don Clawson is the assailant. In Series C, D, E, H, I and L, Lieutenant Brown is the defender and Lieutenant Begala the assailant. In Series G Lieutenant Brown is the defender, Lieutenant Busey the assailant. In Series J, Lieutenant Brown illustrates blows on Lieutenant Busey. In Series K, Lieutenant Brown is the defender and Aviation Cadet Richard K. Reynolds of Royal Oak, Michigan, the assailant.

All illustrations are "Official United States Navy Photographs."

This article is presented to the readers of the Athletic Journal, not with the idea that coaches will add hand-to-hand combat to their activities, but with the hope that every high school boy and college man, from the reading of this article, will know that he stands a better chance of surviving this life-and-death struggle with a knowledge of the value of hand-to-hand fighting, in which he will receive specific training after his induction into the service.

Series K—1, 2, 3

Disarming and incapacitating an assailant with a pistol. This sequence of actions illustrates the component features of hand-to-hand combat: catch-as-catch-can wrestling, principally its illegal variations; savate; judo; jiu jitsu; and brawl fighting. Any single feature of this sequence may be, in itself, a liquidating measure.

Series K—4

The initial movement of the defender is a spin, into the assailant, but *away* from the gun. This is possible by virtue of action times as against reaction times, the defender can act more rapidly than the assailant can react to pull the trigger with the gun still in the defender's back.

Illustration 2, climax of the spin, illustrates forms of brawl fighting, the fingers gouging the eyes after a sharp blow in the face with the palm of the hand, and a groin kick. Essential to the maneuver is the firm grasp of the gun arm by the defender's left hand.

Illustration 3 shows an illegal wrestling hold, snapping the head back by grabbing the hair, and a boxing foul in the blow to the throat, which is a judo variation.

Illustration 4 shows the defender throwing his right leg past the assailant for a hip throw, typical of wrestling or jiu jitsu. The assailant's head may be driven into the ground.

The illustration, from this series, on the front cover, shows a typical hand-to-hand measure, a sharp blow in the side with the knee and an illegal wrestling hold, the locked elbow.

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would coach any other sport. Due to the danger of injury which might result from a too aggressive application of the techniques, the sport lacks a competitive aspect. Proficiency of application, however, can be obtained through constant practice. This is especially true in those maneuvers which depend on speed rather than on injury. Speed is the keynote in the success of some disarming tactics. Speed, maneuverability, quick reaction, self-confidence and courage can all be acquired through constant and diligent practice.

The pre-flight school drills are set up so that each cadet is presented with a given situation of close-in combat. He must master the fundamentals in order to gain full control or fight his way out. Drill, drill, and drill again, are required before the combatant is sure of his ability; the cadet does drill, and drill, and drill. He realizes that here are some additional means by which his life may be saved some day in the future. The cadet loves it,

Series L—1, 2, 3

This backward flip is a typical jiu jitsu maneuver, employed as counter to a rushing attack. It is typical of Japanese experts to provoke an attack and, with this maneuver, use the opponent's momentum and speed against him. Grasp of the clothing is of value as a control, to direct the opponent's

Series L—4

fall against a wall or rocks, or the clothing may be held for a strangle.

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asks for more and practices it in his room. The day may not be far off, when the cadet may be forced down behind enemy lines or in unfriendly territory. Then he may discover that hand-to-hand tactics are the methods needed most, to come home alive.

Let us set up a situation! A man is attacked. By any of a series of maneuvers, he disarms his adversary and thus, as far as weapons are concerned, they are on even terms. He brings his knee up into his adversary's groin, throws him over his hip, twisting him so that he falls to the ground on the back of his neck. To carry the attack further, if necessary, our fighting man now may drop on his adversary's ribs with the full weight of the body behind the knee, or use his feet to kick viciously in the vulnerable areas of the victim's body, or snap an arm at the elbow with a sudden quick jerk. In this situation, it began from the defensive, but was quickly turned into attack. Our man, necessarily, did not have to wait to be attacked, but might have been the aggressor from the first. Need it be said that the hand-to-hand expert could have easily killed his opponent by dropping him on a convenient rock or against a tree trunk, if they were available. Any of the above maneuvers and many more are executed easily by the fighter who has the proper skilled background in hand-to-hand combat.

The types of technique in close-in fighting, certainly will add to a combatant's poise and ability as a man of arms or an agent assigned to a dangerous mission or task. Not only is he proficient in the application of every form of fighting tactics wherever his natural ability is concerned, but he is better able to protect himself against the tactics which may be practiced by the enemy, because he knows what the enemy is going to attempt to do.

As has been stated in the explanation of some of the maneuvers, coaches of wrestling and boxing may well point out, in those activities, the crippling features, illegal in orthodox boxing and wrestling, which are the essence of hand-to-hand combat.

What the Colleges and High Schools Can Do to Help Prepare Boys for Hand-to-Hand Combat as Soldiers

By Hugo Otopalik
Wrestling Coach, Iowa State College

ALL branches of our armed forces are calling for, and needing, men with qualities of leadership, confidence, self-reliance, determination, the will-to-win, resourcefulness and quick reaction. These may be acquired by varying conditions, teachings and environment, and unless one has these highly essential characteristics, he cannot be the most effective or useful soldier.

In addition to these qualities, our boys must have the physical attributes of muscular co-ordination, strength, stamina and endurance, that is, a fitness to be able to carry on, through thick and thin, under the toughest and most exacting of conditions. These requisites can only be attained through an intensive course of long and arduous training or conditioning, and under specific, competent supervision.

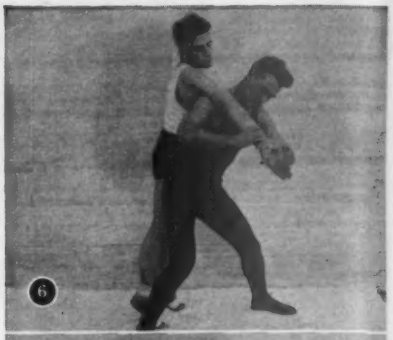
The psychological characteristics, as mentioned above, are very essential and highly important, but are of no avail unless accompanied by the second list of physical conditions. All can be, and are, developed to a greater or less degree before military service begins. After that, the armed services must intensify them to the highest point of efficiency.

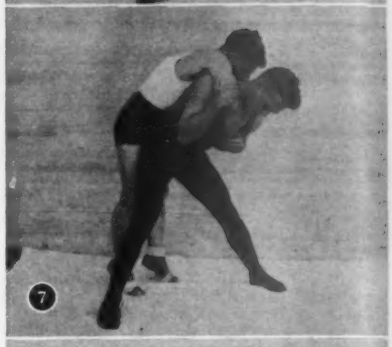
Taking it for granted that a soldier's pre-service training, education and experience, supplemented by the future training in service, bring out the maximum of psychological or morale qualities, the physical efficiency and effectiveness of the soldier can, and should, be enhanced before he is called to duty.

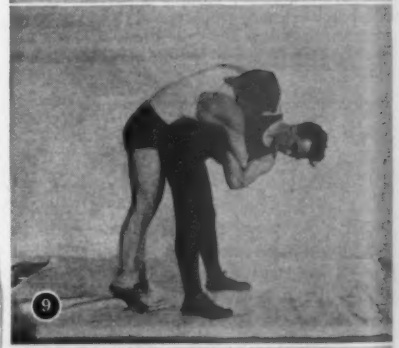
Authorities inform us that a majority of our troops are lacking in strength, stamina, and endurance; they are very inefficient in physical skills and co-ordination; two to four months must be devoted in developing all these, even before the technical phases of the service can be taken up. A greater part of this time could be saved to the service, if more and better training were available, before the boys are inducted.

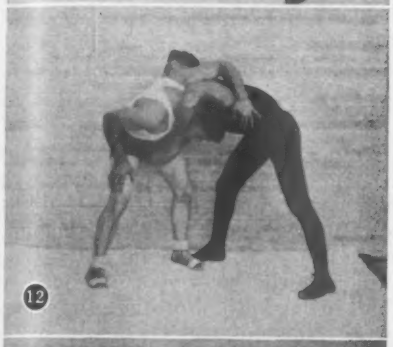
This war is so highly technical and mechanized, there is so much the raw recruit must learn and do, that time is not available for the teaching and training of the skills necessary for physical efficiency.

The services are not so much concerned that the soldier swim, or run, or climb, or jump with correct technical skills, so long









as he is able to reach his objective and have endurance enough to go on to combat, and return to fight another day. It is a small percentage only of the total number in the services, that have had the opportunity, or have taken advantage of athletic participation, or have taken the trouble to learn correct form in executing the fundamental physical skills. As a result, the untrained boy is handicapped from the start; he is slowed down; he fatigues quickly; he does not know how to relax, and he wastes much of his energy which could be of service to him.

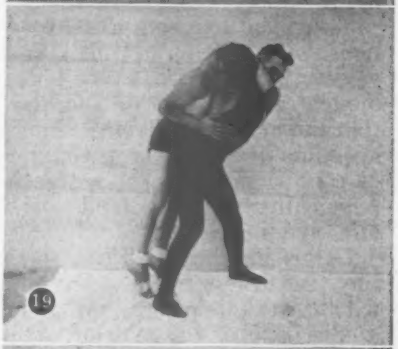
The boy who has participated in physical training and sports before becoming a soldier, makes for a better soldier. Ability to do things correctly and according to the best form means more efficiency, the conservation of energy, and a better fighting man.

This brings us to our subject matter and the part our schools, athletic clubs, and recreation centers can take in the development of the fighting men. It is the patriotic duty of school authorities, and the obligation of our coaches and athletic supervisors, to see to it that our boys are taught the fundamental basic skills of our American sports. Sports must be made

(Continued on page 26)

The accompanying wrestling positions and methods are well known to American wrestling and may readily be learned by the raw recruit or the school boy without injury. Competent supervision should always be provided and practice should be in slow motion, that is, without resistance and without force being exerted, until the boy becomes well versed in the game.

1. **The referee's position on the mat. Starting position.**
2. **A leg pick-up, to go behind, or to get an opponent off his feet.**
3. **Holding a man on to the mat with a waist lock.**
4. **A headlock from the under position.**
5. **An escape with a wrist hold, body side turn and arm across the face.**
6. **A flying mare with palm up. This is not legal in American wrestling but is used in judo. Contestants should not put on much pressure.**
7. **A flying mare with palm down. This is legal in our wrestling. The man in black drops down to his knee and pulls his opponent on to his back.**
8. **A continuation of the preceding hold.**
9. **A double-wing lock and a hip throw from a standing position.**
10. **A fall from the preceding hold.**
11. **A single-wing lock followed with a fall and pull backward.**
12. **A head chancery and crotch with body turn.**
13. **A continuation of the preceding combination.**
14. **A standing wrist lock. The wrist lock is an excellent offensive and defensive weapon when used properly.**
15. **Another form of standing wrist lock.**
16. **Another wrist lock from the under position.**
17. **A leg pick-up from the front to get an opponent on the mat.**
18. **An escape from a half Nelson.**
19. **A head hold with which to throw an opponent over the head to the floor.**
20. **A break for a waist hold.**



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Teaching for Physical Fitness

THE department of physical education for men at Indiana University has issued a manual for the instructor of the service program. The manual was largely prepared by the program committee for intensified physical fitness. Indiana University was one of the first to make a toughening course compulsory for all students. Many of the paragraphs in this book are unusually interesting. We, with the permission of the authors, quote a few sentences relating to the aims and objectives of the physical fitness program for men as follows:

"The aim of education is to facilitate that optimum growth and development of each individual which will afford the maximum adjustment to his physical, mental, and social situations today and in the future."

"Physical education is a formerly neglected phase of education to which the nation and our university have turned, overnight, for essential developmental results. For Indiana University's men, the aim of such physical education might be the optimum development, through total-body activities of conditioning and of recreational nature, of the physically, mentally, and socially integrated and effective individual."

Later, in Chapter Five, the relationship of the physical fitness to the intercollegiate and intramural and athletic program, the author lists as subject at the head of the article "Athletics and Physical Fitness—Not Athletics versus Physical Fitness." We frequently make the mistake of speaking of athletics and physical education. Physical education, of course, is a general term and should include all of the various activities found on a physical training program. Unfortunately, however, too many people think that physical education applies only to such activities which, by no stretch of the imagination, can be designated athletic sports. Athletic sports are a very large part of physical education. The other day we heard a prominent physical educator refer to body-conditioning exercises and athletics. We, ourselves, have made the mistake at different times of speaking of athletics and physical education, or athletics and body-building exercises. One thing is needed and that is for us to use our terms more carefully. If we speak of body-conditioning activities and athletics we of course imply that there are no body-conditioning values in athletics. This, we know is not true.

Physical education is not a good word to designate the things that we mean by an all-embracing program of physical training. No one, however, apparently has suggested a better word. For the duration of the war, we might properly abandon the term physical education and use instead physical fitness as a subject.

Athletes in the Service

WE have no way of knowing whether more school and college letter men per thousand are in the armed forces than boys who did not win their letters in athletics. We do know that an unusually large number are in the service. We do not wish, in any sense, to disparage the boys who did not happen to play football or basketball or engage in some of the other sports. Those of this class who are in the service and are fighting for all those things that we hold dear are deserving of our support and backing just as much as the athletes.

We mention this because a prominent American has written, "We ought to encourage athletic idols to get out and face death for their homeland." This statement rather burns us up, because it implies that our athletic men are not doing their share of the fighting in the Solomons, in North Africa and elsewhere. So far as we know, no one has any definite figures which will show whether the athletes as a class are in the service. When the figures are produced, we predict that those men who are not fighting but who are criticizing our athletic idols will feel a bit sheepish, to say the least.

In the last war, our athletes had a bad press—that is, a few were pictured as slackers, and a great many people thought that the athletes and sportsmen as a class were slackers.

It is a human characteristic, perhaps, to criticize others, and we repeat that some of the men who are not with the fighting forces themselves are talking the most about others who likewise are not with the fighting forces. We are sure, however, that when the records are disclosed, they will show that our school and college men who toughened themselves in athletic competition did their part.

It is always a very great pleasure to read that some former athletic star has acquitted himself magnificently in the Solomons or Africa or at some other front.

For instance, an article entitled, "How a Navy Sub Crew Performed an Appendectomy to Save a Shipmate," by George Weller, appeared in the country's press recently. This probably is one of the most widely read articles of the war. Of the officers who co-operated in performing the operation, three of the five men have good athletic backgrounds.

Lieutenant Commander Ferrall was a boxer at the Naval Academy while Lieutenant Manning played football and lacrosse. Lieutenant Ward was an All-American lacrosse player at the Naval Academy.

In another story which has to do with the navy's job in the Pacific, four former Academy athletic stars are listed as among those who have done exceptionally fine work in the Pacific theatre. As a result of their work these men have received medals. The men with athletic background in this group include the following: Lieutenant Jack R. Crutchfield, fencing; Lieutenant Commander Wallace M. Beakley, lacrosse; Lieutenant Commander Thomas B. Klakring, lacrosse, and Lieutenant Harold H. Larsen, football.

We made a rough guess recently that at least 10,000 former high school and college coaches are in the service. We feel now that that estimate was far too small. Whether this approximates the right figure or not, of one thing we are sure and that is our school and college athletes and coaches are, as a class, doing their part in helping win the war.

One other fact may be stated with assurance and that is this, that our American boys who are fighting in this war are doing a magnificent job. It has repeatedly been suggested that, the closer the boys are to combat, the better the morale, and people who know report that the spirit and morale of the troops in Alaska, Iceland, Australia and elsewhere are splendid.

Tightening the Belt

A FEW years ago the American people were dreaming about an abundant life and were envisaging a future in which the stern discipline and many tribulations which are a part of the free-enterprise system would be ameliorated or entirely dissipated.

We have, for a great many years, been suggesting that character is developed by overcoming obstacles and that a combat with evil develops the individual. Needless to say, there are many who do not agree with this philosophy; but, today, when we are engaged in a war which may mean the loss or survival of our American way of life, we are tightening our belts and are suggesting that we will be better fighters, if we give up many of the luxuries with which we are familiar.

Of course, there is a middle ground between the old Spartan way of life as compared with the Athenian way of life, but the fact remains that our forefathers who founded this nation believed in the Spartan way of life partly, perhaps, through necessity; but, at least, they believed that the people should be toughened to meet the urgencies of frontier life in the days of the pioneers.

It is only lately that there have been those who held dreams of Utopia and believed that the people did not need to face the consequence of an easy way of living.

As we have pointed out many times, the athletic men never accepted this philosophy, and, today, that is one reason why the men who have trained on farms, in the woods, in athletics, and in other activities which call for a strong body and a resolute will have been given proper recognition.

The Japanese System of Athletics

WHILE we may think that jiu-jitsu is the commonly accepted system of physical training in Japan, it is well to remember that back as far as the Olympic Games in Amsterdam in 1924 the Japanese showed considerable interest in American athletes and American coaching. They took many pictures and, later, employed American coaches to help them put in a system of athletics copied after the American system.

Some of our readers may have heard Fritz Crisler's address in December 1941 in Detroit at the joint meeting of the National Collegiate Athletic Association and the American Football Coaches Association. "It was my good fortune," he said, "to go to Japan in 1920 as a member of a baseball team. Baseball there and then had just taken root as a national pastime. At that time I participated in one of the first regulation games and track meets ever to be held on the island. Wrestling, baseball and a little tennis were the only sports. Golf courses were nowhere to be found; boxing, swimming, and other sports were practically unknown. In 1924, a Japanese classmate of mine, Okabe, was named athletic commissioner for the nation by the war lords. It was not long until it was considered unpatriotic not to accept sports as fashionable."

We recall watching the Japanese competitors in the Olympic Games in Los Angeles in 1932. They had men entered in nearly every track event and in most of the field events. In fact, they did very well in the sprints, in the pole vault, the broad jump, and the hop, skip and jump, and, as we all remember, they did exceptionally well in swimming.

Japan, however, has taken up American baseball more enthusiastically than any other sport. We were talking to a Japanese of some prominence a few years ago and he told us about the people standing in line all night to buy tickets for a certain baseball game.

We read the other day that Japan had more baseball teams in its high schools and colleges than we have in our high schools and colleges. Whether that is true or not, we do not know, but we are sure of one thing and that is that the Japanese system of physical training is based largely on athletic sports. Jiu-jitsu should not be called a sport because it is basically designed to teach a Japanese athlete how to kill an opponent.

It is interesting to keep in mind that in recent years athletics have been carried on as never before in Japan, Russia and Germany. Whether the governments of those three countries encouraged sports participation, because those governments were thinking of the present conflict, of one thing we are sure and that is, that the men in those armies representing those three countries were benefited physically and otherwise through the participation in sports.

Tournament Time Coming Up!

An Over-All Review of Tournament Offenses

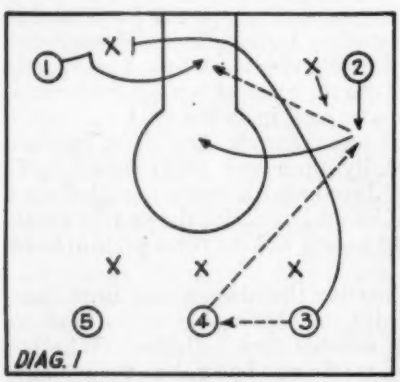
By Everett S. Dean
Stanford University, California

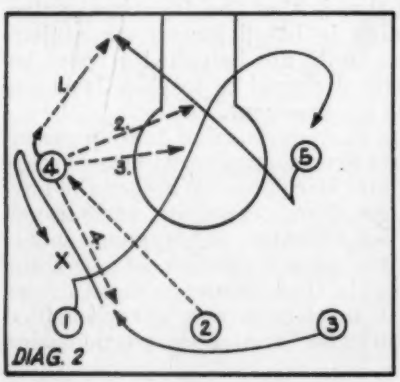
FEBRUARY is tournament month, in so far as all tournament preparation starts in this month. In their preparation, some coaches believe in definite tactics for tournament play, while others will make no changes whatever. There is no blanket answer for this problem, because different teams and tournaments present varied problems.

The offenses to appear in this article were used by Rice, Kansas, Colorado, Dartmouth and Stanford in the National Collegiate Athletic Association Tournament of 1942. In all cases, I believe these offenses were their regular offenses.

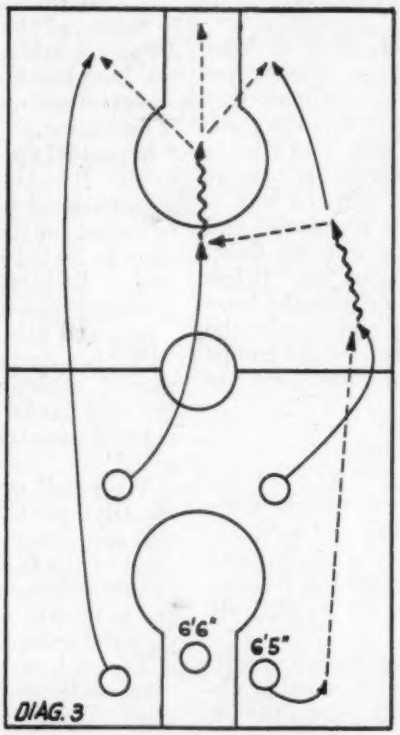
The most thrilling game in the tournament last spring was the Colorado-Kansas game which ended 46-44 in favor of Colorado. Both teams used a man-to-man defense which set up a good screen offense by each team. I shall endeavor to describe one play from each offense of the five tournament teams.

Coach "Phogg" Allen of the University of Kansas, used a 3-out-and-2-in offense which depended upon screens to break a player loose through the middle. This is a formidable formation, Diagram 1, and many effective play possibilities may spring from it. Three passes to 4 who passes to 2. Three screens for 2 and continues on, to pick off 1's guard. Two passes to 1, cutting toward the basket. One, 2 and 3 are in good follow-up position.





Coach "Frosty" Cox, University of Colorado, had one of the outstanding teams of the nation last year. He used a double post and screen attack which called for considerable weaving in the front line at times. Diagram 2 illustrates a basic play that has set up many scoring situations for Colorado. It has many good play possibilities.

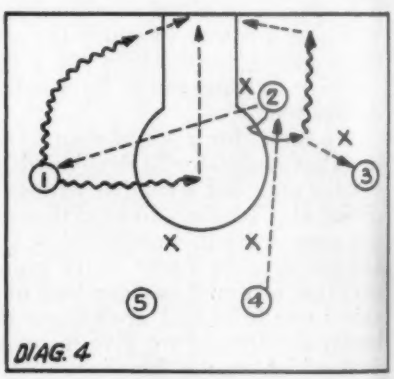


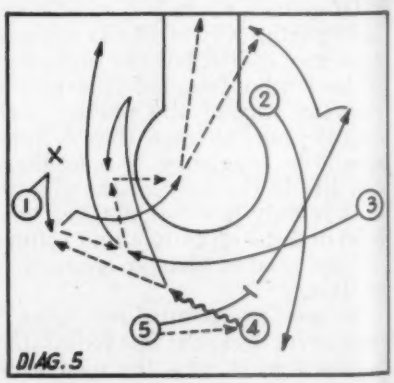
Two starts the play by passing to 4. Two screens for 1 who cuts for the basket and takes 5's place on the pivot. Five cuts for the basket. Four has fine passing options as shown in the diagram.

"Buster" Brannon of Rice Institute had a lightning-fast break that could be met best by good ball-control. He had two big active men on the defensive board, those men measuring 6' 6" and 6' 5" in height. The other men were small and fast. The defensive forwards would slight their defense and gladly trade a medium long shot for a good break for their basket. Many times they started their break as the shot was made, which put them half way down the floor for a long pass; their opponents found themselves outnumbered two on one and three on two much too often. Good ball-control with a strong follow-up game was the best way to meet it (Diagram 3).

The final game between Dartmouth and Stanford brought out two well-designed plays which were particularly well adapted to the personnel. Dartmouth had a simplified formation, but the play options were excellently planned to utilize the strong points of the players. The offense had no weave and there was a minimum of movement. The passing was good, and the general plan was to get the pass in to Olsen, the center, whose clever footwork and fine shooting made him a real threat. He fed out to both forwards who were good shots from the side. Monroe was extremely effective going to his right to the free-throw circle, or to his left toward the end line. This offense was the epitome of efficiency, in that it so easily utilized the strong points of all the players. In Diagram 4, the pass is made by 4 to 2, who has several options. He has clever fakes and footwork to get loose. He may pass to 3 who is a fine shot at that spot, or he may pass out to 1 who goes equally well to his right or left. The offense is entirely free lance.

The Stanford team used a basic play which was designed to take the opponent's





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big man off the board and put a little man in his place. The Stanford center was a good medium long shot and got several medium shots as a result of this change of position. Usually the star forward was taken to the defensive pivot post for the many advantages to be gained (See Diagram 5). Five passes to 4, who passes to 1, and cuts for the pivot spot, left vacant by 2 who has gone to the front line. One passes to 3 who passes to 4 on a pivot. One cuts off the double block made by 3 and 4. One may shoot or pass to 5 who is open frequently. Four stays on the pivot for a free-lance ball, until the ball changes hands.

Kentucky's Pivot Post

By A. F. Rupp

Basketball Coach, University of Kentucky

THE offense that was used by the University of Kentucky last year to reach the finals of the Eastern National Collegiate Athletic Association play-offs was based almost entirely on the pivot-post type of offensive play. We used several variations that were extremely successful.

We found, in playing against Illinois, that their guards played our forwards very tight on the side line. We had tremendous speed in one of our forwards, Allen, and we managed to get in to the basket, by simply having him fake out to get the pass, quickly reversing and breaking behind his guard for the basket. Our guard faked the ball to him, then passed to the center and the center passed to Allen, as he came under for the shot. This maneuver, shown in Diagram 6, proved very successful. One fakes a pass to 2, who starts for the pass, reverses, and goes in to the basket. One passes to 3, who passes to 2.

We also found that our guard cross proved very successful. We had three guards last year who handled the ball very well, especially when the opposing defensive men passed them. The maneuver is illustrated in Diagram 7. One passes to 2, screens for him and both break for the basket. The center passes to the one that is open.

Guard 1 passed to guard 2. As soon as guard 2 caught the ball, he threw it in to the center and guard 1 screened on the inside with 2 breaking directly behind him. We then used a variation of this. Guard 1 passed to guard 2, who passed in to the center and our guard 1, who was exceedingly fast, cut directly for the basket and received the ball back from our center. Our guard-around-play using a short flip block also proved effective. In other words, we passed the ball in from guard to forward. The forward took one step and handed the ball to the guard who drove past him. This maneuver was successful, because the defensive men were playing us tight. We tried all of the variations that came from the pivot-post offense, but the ones that I have named were our most successful plays in this particular tournament.

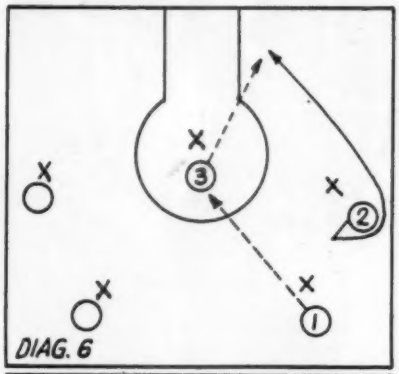
We also used one other play that I wish to describe, as illustrated in Diagram 8. Guard 1 passed to guard 2, who passed to the center. Guard 2 screened for him, as he broke for the basket. The forward on the same side cut across and created a second screen. The timing on this was very satisfactory and it managed to get our boys loose on several occasions.

The Scissors Plays of Penn State

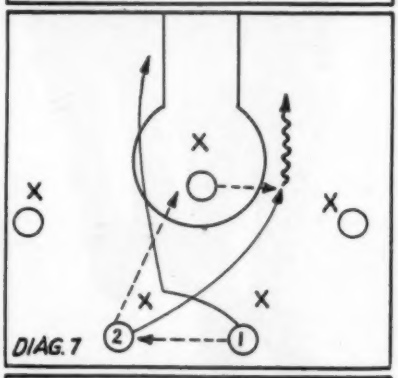
By John Lawther

Basketball Coach, Penn State

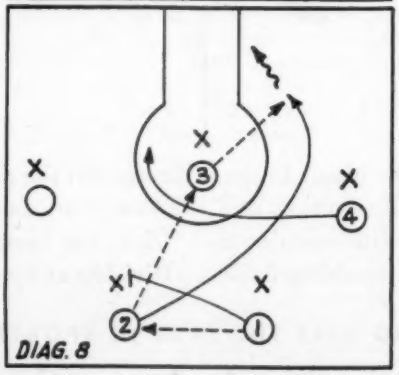
THE Dartmouth-Penn State game in the National Collegiate Athletic Association play-offs was won by Dartmouth. The State team used a 3 back-2 out sliding zone defense. Dartmouth's big center, Olsen, was too much for the State team to stop. He shoveled missed long shots back into the basket with a one-handed tap, before the ball came down within reach of the State guards. Olsen used a high one-handed push shot, with somewhat of a fade-away movement of the body, for shots along the end line, anywhere from ten to twenty feet out toward the corner. The State guards could not reach the shot to block it. Olsen scored nineteen of Dartmouth's forty-four points.



DIAG. 6



DIAG. 7



DIAG. 8

The Dartmouth offense against the zone started with two men out front, one man down each side line, and Olsen roaming the base line. The Dartmouth cuts were toward the free-throw line and toward the corner of the bankboard on the side opposite Olsen.

Dartmouth played a man-to-man defense. The State offense consisted chiefly of scissors plays in which two men would criss-cross around a pivot man whom they had fed. The pivot man took an outside pivot and fed the ball to the corner of the board, or shot, depending on the defensive switch. The alternate plays were criss-cross cuts with the ball being fed from the side of the court. Diagram 9 (A) illustrates the scissors around the pivot and B in Diagram 9 shows the scissors without the pivot. The first (A) worked better against Dartmouth and the second (B) better against Illinois. Any adjoining two men may criss-cross around 4 in A. B includes two offensive maneuvers. The first is that the original passer runs a simple give-and-go with the exception that he cuts on the side of his guard farthest from the ball, forcing the defensive man to play with his back toward the ball. Careful feeding over the defensive guard permits a running shot not hard to make, but difficult to guard against. The second maneuver is that of the other cutter. Note that the cutting pairs in this second offense are made, so as to skip a man (2 in the example given). This factor of spacing is necessary, in order to give the other cutter (3 in this case) more time and space. He must draw his defensive man into the path of the defensive man covering the other cutter (1 in this case). The principles here are woven into a pattern, so that there is continuity of action. A dribble interchange was thrown in for variety, with the dribbler reversing direction, and cutting to the far side of the basket immediately after the interchange. The play principle is the same but looks different.

The State boys felt after the Illinois game that the most successful maneuvers they used against Illinois were not the particular plays nor defense, but the forcing of Illinois to use a slow break, and the deliberate offense, State adopted after getting a lead. They felt that their own greatest weakness against Dartmouth was

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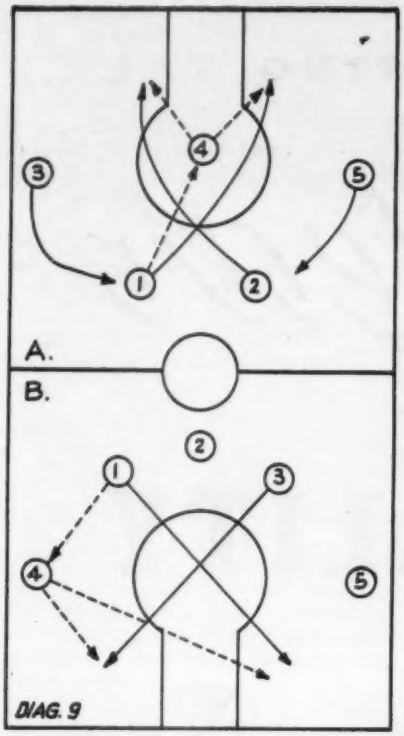


the low percentage made of reasonably easy shots attempted. State was able to break under for many shots which they missed. They, however, are under no illusions as to whether a championship outfit must be able to shoot under pressure.

Making Use of the Players' Initiative

By Douglas R. Mills
Basketball Coach, University of Illinois

THE Illinois offense is based on a series of inside screens with four players revolving around a stationary pivot man, and the plays are more or less impromptu depending upon how the defense is set up. In other words, the Illinois offense is based on the players' own initiative with the idea that, if the defense does not know what is coming, the players are apt to set up their own plays. The minute an offense gets set, the defense has a chance to play it and become aggressive. This offense keeps at least four men moving and handling the ball all the time.

The series of inside screens are executed on the move and, consequently, are not a violation of the rules as the defense is drawn to the offense. Everything revolves around the center who is an important man in this offense and must be in a position at all times to receive a pass from his team mates. To do this, he must be alert and shape himself up in regard to his defensive man so that he is not blocked out of the play at any time.

We station our center or pivot man about eight feet from the basket outside the free-throw line. He moves from side to side with the ball across the free-throw area, so that he is on the side of the floor on which the ball is. We do not use the pivot man as the main offensive threat, although he spends considerable time on the hook shot with either hand. In other words, the pivot man is used mainly to pass the ball to and cut off of.

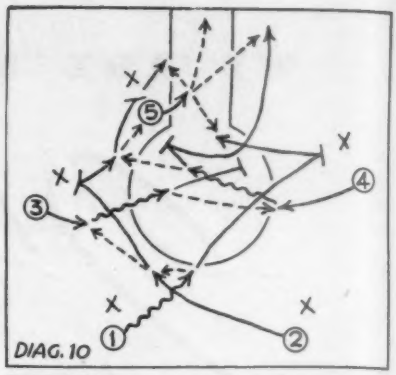
Our guards and forwards interchange positions, but we have definite defensive balance because, at the time our guards go into the forward positions, our forwards are coming out and assuming the guard positions. Too many styles of offense are based with no defensive balance, and they are very susceptible to fast breaks, due to bad passes and interceptions. Our system not only gives us good defensive balance, but at the same time draws man-for-man defenses to the position of having their defensive guards playing in their forward positions and vice versa.

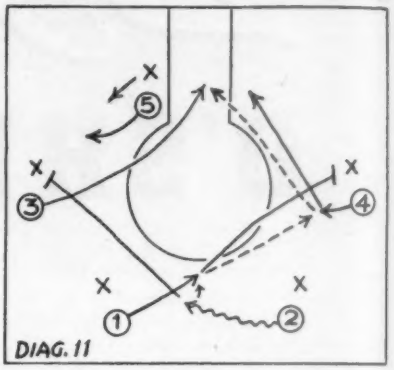
Diagrams 10, 11, 12 and 13 show some fundamental set plays.

In Diagram 10, guards 1 and 2 cross. Guard 1, starting with the ball passes to guard 2, who cuts behind him. Guard 2 passes to forward 3, and screens his man on the inside. In the meantime guard 1 has continued down across the floor to the right and screens forward 4's man from the inside, and forward 4 swings out across the floor. Forward 3, who now has the ball, comes across and passes to forward 4 and screens his man. Four throws the ball to guard 2 and screens his man from the inside. This has made the ball cross the floor twice and has usually caused the defense to shift across. Guard 2 passes the ball to the center 5 and cuts him off hard and close. If he is open, he receives a handback and continues in to the basket. If he is not, 5 fakes to him and looks for forward 4 who is breaking to the basket from the end line. Guard 1 swings across the free-throw line as he is the third choice for a relief pass, in case the play has gone "haywire."

Forward 3 swings out as a safety for defensive balance. If this play does not set up, the players assume their positions and continue to rotate, always screening on the inside. Sometimes the players who are in the forward positions go all the way to the end line, making a feint as though to break to the basket, but really coming back again to become part of the revolving arc.

Diagram 11, showing the second set-play of this offense, starts as follows: Guards 1 and 2 cross; 1 receives the ball from 2, and passes to forward 4, screening off 4's defensive man on the inside. Guard 2 crosses the floor to forward 3 and screens off his defensive man. Forward 3 breaks immediately for the basket and receives a





pass from 4. If he is open, he continues to the basket for his shot; if he is not, he stops and doubles with 4, who cuts off of him.

In the meantime the center has moved across to the side of the floor, so as to leave the center wide open for this cut. In fact, he can be in a position so that he may get in the way of forward 3's man and make the guard run around him, in case guard 2 has not done a good job of screening. The two guards swing back out to the center of the floor and keep defensive balance.

There may be three or four complete cycles across the floor, before this last play is set up. This will keep the defenses moving and give the players a chance to set this play up, provided, in the moving of the ball, somebody has not been open in the meantime and the players have not fallen into a play themselves.

In Diagram 12, guards 1 and 2 cross as in the previous plays and 2, after receiving the ball from 1, passes in to forward 3 and screens his man on the inside. Forward 3 swings for the basket immediately on a dribble. If his man has been thoroughly screened, he may continue on the way to the basket unmolested. In case he is not open, he stops at some point towards the basket, and pivots and 4 cuts off of him immediately.

In the meantime guard 1 has continued toward 4 and has screened off his man on the inside for him. The center 5 has been backing down on the way to the basket, so as to get his man deep underneath the basket.

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ALREADY the kinks are coming out of his delivery . . . he's getting his curves and speedball under control. Yes, this season he'll do you proud, Coach. And his teammates, under your patient instruction, are shaping up, too—into a smart, smooth-working, winning unit.

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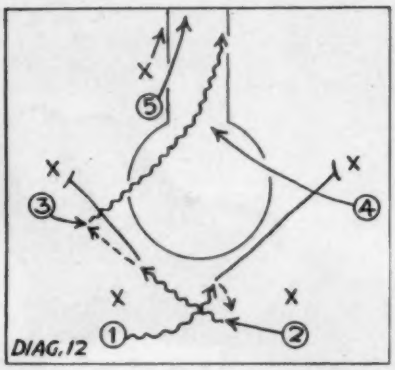
We have found this play to be unusually successful, after working the other ones, and a good dribbling forward can often get free for a beautiful shot, working toward the basket. In tight man-for-man defenses, the only man who can stop him is the defensive man in the center, and should he switch off to cover him, forward 3 can pass the ball to the center under the basket for a set shot. This play, of course, is set up, after the ball has been moved across the floor three or four times.

In Diagram 13, guards 1 and 2 cross. Two receives the ball, passes to forward 3 and continues on around him for an outside screen. Forward 3 passes the ball to the center 5 and follows the pass. Guard 2 cuts for the basket and receives the pass from 5, or 5 passes to 3 who has cut off of him. Forward 4 swings across to the free-throw line for the third option.

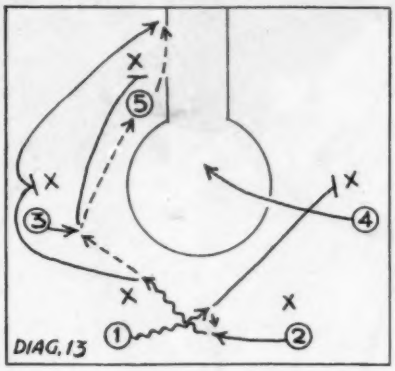
This is practically all the set offense plays that we use. There is another coaching point to emphasize in using this revolving offense from one side of the floor to the other, and that is this—we start slowly and increase our tempo, and if the defense is loose, we continue to make our arcs and cuts closer and closer to the basket, as we pass the ball from one side of the floor to the other. In other words, this offense is designated for the width of the floor and may be construed as a lateral offense instead of the usual set type.

We have found that this offense increases our ball-handling tremendously. It is impossible to recognize our team after six weeks of practice on this style of offense.

We use set signals of some sort to set up these four plays, and all five men know how many exchanges across the floor will take place, before the play will be actually started.



DIAG. 12



DIAG. 13

Rapid Rolling Offensive Triangle Merging a Set and a Moving Screen

By Forrest C. Allen
Basketball Coach, University of Kansas

THE title of the Kansas offensive signifies an offensive roll or grapevine down the floor with the men passing at angles and running in curves, interspersing a pivot only when the offensive man is confronted with a defensive opponent. The axioms are: Never dribble when you can pass; never pivot unless forced to do so; never make a long pass unless a team mate is at least ten feet in the open; never dribble closer than six feet to the side line and then cut in toward the center of the court as soon as possible.

The dribble simulates the broken-field run in football. A dribble is for the purpose only of enabling the player to break in the open so that he may pass. The dribble is an individual play, consequently passing should be resorted to, whenever possible. When a player passes to a team mate in an unguarded position and the passer automatically moves to an unguarded position, this play is known as the perfect offensive play.

Passing and cutting are encouraged more in the passing game than they are in the dribbling game. In the passing game the opponents are faced with many more passing angles to overcome than in the dribbling game.

When the dribble is used, we teach the low dribble for security. When an offensive player is in danger of losing the ball to an opponent, we teach the low-drag dribble. The player thrusts a portion of his thigh, body and shoulder to the opponent, using the off arm and hand to control the dribble away from the closest contact of the opposition. We use the high dribble for speed, when there is no opponent between the dribbler and the basket.

The long pass and the short pass are employed, but we never use the long pass, unless a team mate is clearly in the open. By the time the ball travels a great distance, it is an easy matter for the opponents to break up the play. The short pass is the more efficient because a team is kept together by the short-pass method, thereby stimulating better teamwork, affording better rebound facilities on the offense, and making possible a more compact defensive unit.

The reason that we do not permit a player to dribble the ball closer to the side line is the possibility, that the player may fumble, or have the ball knocked out of his hand, causing it to go out of bounds. With this six-foot margin, it is possible for the player to recover and re-play the ball. Too many times players run too close to the side line when they are receiving a pass from a team mate. We use the grapevine pattern, always converging toward the center and not straight down the side line.

We fast-break only when we have the opponents outnumbered. For instance, three on two, or two on one. We never fast-break when the defensive opponents equal our offensive threat. We do put pressure, however, on the opponents when we start as if we were going to fast-break, and we always go to, or past, the center-division line before we reveal our intentions. Our opponents determine the next move. If there is a slight let-up by the opponents, we continue our fast-break, mixing our passing, pivoting and moving screens with our offensive charge. If we find the three defensive areas of the basket unguarded at this moment, we will thrust at the basket. The three defensive areas are the area around the free-throw line, and the seven-foot area to the left of the basket, and the seven-foot area to the right of the basket. If the defensive guards drop back flat, that is, each guard in his accustomed position, and no one is to cover the area in front of the basket, we will drive to test the defense.

If any one of these areas is open we will drive, pass and pivot to endeavor to find the weak spot. If they are all covered, we will then drive off to the side and pass back to one of the guards. The quarterback at this juncture will say, "Set 'em up," and all our offensive players will move into a set position. The forwards will set themselves in their respective corners, ten feet from the side line and ten feet from the end line. The quarterback will be in the offensive end of the court, eight feet in front of the division line, and the two guards will be ten feet from their respective side lines, and eight feet from the division line. We are now ready for play. At a given signal, by word of mouth or gesture, the quarterback will call a play and the entire team will start in motion. We now start a game of basketball checkers. By quick sharp movements, one of the offensive players will move to a position that will permit him to screen off an opponent. The ball is passed quickly in an opposite direction, and, if good precision and timing have been accomplished, an offensive player will merge half a step ahead of his opponent. It is planned that this offensive player shall receive the ball at the proper time, and in this way the player will be free enough for a cut toward the goal.

When we are fast-breaking we have a

simple rule to follow: We draw an imaginary line down the center of the court and use two imaginary lines six feet from each side line. If a player with the ball is nearer the side line, he dribbles or passes forward at a forty-five degree angle toward the center of the court to a team mate who is going down the center imaginary line. When the player in the center of the court has the ball, he dribbles or passes out to the left or right at a forty-five degree angle toward the side line, and the passer always cuts behind the team mate to whom he passes. In this way the players pass at angles and run in curves.

It is not an easy thing to teach perfect timing and perfect passing, but it is something at which all of us can aim, and in this way we can greatly improve basketball offensive play. We use a great number of pass-outs, when we recover the ball on our offensive backboard. It is perfectly obvious that the defense will flatten itself around the basket when the ball is passed in toward the basket. Therefore, with a good system of recoveries and passing out, it is possible for the guards to shoot over the head of the defensive opponent.

Defense

We use a stratified transitional man-for-man defense with a zone principle. It is a strata of man for man and a strata of zone, and there is a transition from one to the other depending upon the play situation. When two offensive men start a screening play on our players we switch, slide or trade opponents, which is exactly the principle the professionals play. We do not play a straight zone defense, nor do we play a straight man-for-man defense. The position of the ball determines the vortex or forward point of the defense.

Our men play their opponents man-for-man. They are assigned special men to guard and play those men, until a screen by the opponents is attempted. It is then that the player calls to his team mate, "Switch," and our men take the other opponents.

Personally I have been unable to see the reason for the objection of any coach to a zone or man-to-man defense. Most teams switch from one to the other as the occasion demands. In football, some coaches use a zone defense at times, and others use a man to man. No football coach objects to the other football coach using a certain type of defense, so why should a basketball coach object to a defense used by a particular basketball coach? The reason some basketball coaches object to a zone defense is because they have not been able to find paths through which they can work on a set defense. There are definite passing lanes through a zone defense and they can be explored if the coach knows the answer.

Coach Brannon of Rice is in the navy and could not send a write-up of his style of play last year.—Editor's Note.

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THE NEW YORK TIMES, TUESDAY, DECEMBER 22, 1942

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Football Fans Vote To Continue Game

Back Program of Emphasizing Interscholastic Athletics

Spectator Sports Justify Existence, Big Nine Head Says

Major Griffith Asserts Collegiate Sports Build Morale, Fitness

Men's Physical Training Threatened If College Football Is To Be Curtailed

Gridiron Show Pays Way Of All Other Activities

Continue Collegiate Football for Duration, Fan

Maj. Griffith Sees Necessity For Maintaining Athletic

FANS WANT FOOTBAL

Survey Shows They'll Walk If Necessary

Manpower R On Athletic B

Football's Role

Football in Wartime O.K.'d in College Poll

98 Per Cent Favor Sport, for Duration, American Institute Survey Reveals

Sports Aid U.S. War Effort: Griffith to QBs

Cuddy Demands That Competitive Ath

State Votes to Continue High School Sports; Makes Gasoline Recommendations

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Leaders Believe Gridiron G

College Heads S

National Survey Indicates Public Backing Football

Griffith Hits Defense For College Sport

War Sports Are Wanted

Fans Reveal Willingness To Make Sacrifices.

Sports Justify

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THE ATHLETIC JOURNAL
6858 Glenwood Avenue
CHICAGO, ILLINOIS

What the Colleges and High Schools Can Do To Help Prepare Boys for Hand-to-Hand Combat As Soldiers

(Continued from page 13)

compulsory so that every able-bodied boy may spend at least one hour each day in the perfection of his physical being, so that he can swim correctly, run without loss of too much energy, jump and throw and climb efficiently. He must be taught how to defend himself against attack, when and how to attack, and how to disable or overcome an enemy.

Our boys must be better prepared mentally and physically before war duties come. The better prepared we make them, the better will they stand the mental and physical strain; and, it may be said, the better will be the chance of these boys being back with us again.

A line officer recently said, "A man may not be afraid to die, but we want him to live; and a soldier will only go so far as his legs, his arms, and his physical condition will take him. An unfit soldier is a handicap to the Service." There is much truth to this statement. A man is only as useful as his mental and physical conditions determine.

Our nation may have the fastest planes, the biggest tanks and ships, and the longest range guns, but unless we have fit manpower to run these instruments of war, those planes, tanks, ships, and guns are useless. We must be physically and mentally fit if we are to win this war.

The Jap and Nazi soldiers are tough. Our soldiers must be tougher. Let us fulfill our duty and obligation, and prepare the boy before his call comes. It should be compulsory that every boy participate in some form of athletics. Each and every sport contributes the essential characteristics that a soldier needs and must have.

Commander Thomas J. Hamilton of the United States Navy, recently stated, "My advice to college and athletic officials of this country is, do not neglect wrestling in your athletic program. I feel that this sport is absolutely essential in developing individual physical fitness in our war against the Axis powers."

We need more of the close, personal contact sports. Wrestling, with its rough and tumble aspects, is fundamentally the same as combat fighting between two soldiers. It teaches all the characteristics necessary to our combat troops.

A wrestler and a soldier must think quickly. Both must be tough, both must have courage, self-reliance, fight, determination and the will-to-win; both must perform under extreme pressure. A hard-fought wrestling contest is the nearest ap-

proach that we have in our sports to an actual life-and-death struggle between two men.

It assuredly is not the wish or desire of our military officials that our teen-agers be taught killer tactics of hand-to-hand fighting. Neither do our educational authorities or parents wish this. Rather we should stick to our accepted democratic, aesthetic and educational principles, abiding by the rules of the game, good sportsmanship and fair play.

Wrestling and boxing are, and should be, sponsored in our schools, and conducted as they are today. The boy who has boxed or wrestled before going into the army has the necessary and fundamental physical and mental skills and he readily acquires the more serious hand-to-hand combat tactics which are a combination of both wrestling and boxing. He has learned the tricks with which to defend himself, and the tricks with which to attack the opponent. He has learned to think quickly, to see openings and take advantage of them; he has "guts," fight, and the will-to-win. These are the necessary requisites.

The most effective offensive or defensive weapon is the gun; if there is no gun, a club or knife; and if neither gun, club, or knife is available, the hands, legs and head. These last, the wrestler most emphatically learns to use with effectiveness. By all means, get all teen-age boys into wrestling for the big job ahead of hand-to-hand combat.

The several navy pre-flight training centers have highly developed hand-to-hand combat tactics and there can be no reason why these same tactics should not be taught and learned in our schools with safety and with much good results, especially if a boy has had wrestling, boxing and tumbling instruction beforehand.

It should be most strongly emphasized that all boxing, wrestling and tumbling be under competent and close supervision, and the current rules be explicitly adherred to. The hand-to-hand Judo tricks should only be practiced with the greatest of caution and care that no injuries result. These tactics must be executed in slow motion only, with no pressure or force exerted by the aggressor, and the defender should not resist after a trick is applied.

So much material has been printed and made available that it would be superfluous to take up the details of wrestling or boxing, but preliminary to, and even during the more advanced stages of the sports, the following individual combat contests and exercises should be practiced to develop all the before-mentioned mental and physical characteristics that are to be developed later.

Starting with the raw beginner, whether before soldier training begins or after, we may use the following sequence to great advantage, leading up to jiu-jitsu, judo or

(Continued on page 35)

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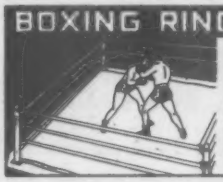

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Finishing Touches in Distance Running

By William P. Mahoney, Ensign, U.S.N.R.
United States Navy Pre-Flight School, Del Monte, California
Formerly, Track Coach, University of Notre Dame

IN a spring edition of the 1941 Athletic Journal, I proposed a simple approach to distance running. It dealt mainly with the problem of pace, which is a most elementary phase, frequently ignored by coach and athlete. That was only the beginning of the story of good distance running. An attempt will be made here to add substantially to it, although this is, in no sense, a comprehensive treatment.

First of all, let us re-state, briefly, what appeared in the foundational piece. All fine performances in this great event are achieved by men who follow a regular schedule along the way. The distance, for example the mile, is broken down into halves and quarters beforehand. Then the runner learns to move along at a reasonable rate for each of those units. He devotes long hours to this one job, running quarters and halves at the scedule he hopes to put together for the big race. Runners like Greg Rice, Don Lash, Glenn Cunningham and many fine college and high school performers develop the ability to come within a fraction of a second. As the late great coach at Notre Dame, John Nicholson, used to say, "The boy must learn to run with a clock in his head."

The aspiring distance runner who ignores this procedure and uses the old high school trick of staying back and kicking in on the stretch, records good time only by accident. He will never become a fine performer, until he gets this much technique set.

Besides the capacity for handling pace, a good runner must develop four other tremendously important weapons. I will list them as speed, a kick, race judgment, and stamina, and will proceed to discuss the means of developing them in that order.

First of all, speed. To the average track fan, this word is not commonly associated with distance running. But to anyone who has watched top-notchers perform, speed is almost as important to the long-winded gentry as it is to sprinters and hurdlers. I will say that it is just as important in its field, and for this reason: In order to handle the pace which must be followed, to run fine time in any distance event, the runner must be a pretty good quarter-miler.

It is common knowledge, for example, that Glenn Cunningham could turn up a quarter in about 48 seconds. Naturally, then, he could handle the familiar 61-second pace, necessary for fast milers, much more comfortably than could a very strong runner who did not possess Glenn's speed. Furthermore, speed gave Glenn the ability to turn on a sprint to a greater degree than his competitors.

The important thing I want to emphasize is that speed is not the problem solely of great runners. It applies to the up-and-coming novice, too, and to the same great extent. He will handle his 70-second mile pace and be enabled to call on real speed much more easily than his opponents, if he develops this weapon.

And how is speed developed? You have probably guessed the most important way. By sprinting and comparatively fast work over shorter distances. That is the reason one sees the top runners include plenty of two-twenties, quarters, and six-sixties in their week's work. This work can be done much more easily in the company of sprinters and men who operate at shorter distances. I have only one other suggestion to make, and that is that sometimes good runners drop to a shorter race for a whole season, in order to whip up their speed. The coach should give this serious consideration, if he sees a strong, promising runner who needs fast work.

Now about the kick. Perhaps I should explain that by "kick" we mean the ability to outsprint one's rivals in the home-stretch. It, too, is vitally important, because most good races are fairly even up to within 150 to 100 yards from the finish. From there on in, the man who can get that last something, is usually a certain victor. Legion have been the runners who, possessing most of the other weapons, have missed track fame, because they did not have a kick. The two finest "kickers" I have even watched were Glenn Cunninghame and Greg Rice. They are probably without equals in this department.

Rice did not develop his "kick" overnight. Coach Nicholson spent the better part of two years helping Greg get it. There are several ways of achieving the kick. One great exercise is to jog, then suddenly sprint wide open, then jog, and then sprint again, and so on "ad exhaustion," all of this at the staccato command of the coach who stands in the center of the track. (Another helpful method is to end every workout with a fast sprint.) Still another, may be mentioned. The runner should go high up on his toes into a sprinting positoin, thereby calling into play fresh muscles which were not used in the low-stepping distance pace. This technique, plus the alternating jogging and sprinting, were Rice's greatest aids. It has been used, before and since, by many successful coaches and runners.

The next factor, race judgment, is so vast in its nature that I can only hint as to its possibilities. What it amounts to is the use of sound, alert thinking before and during the race. Before the race, it involves an analysis of the opponent's style, and the best way to cope with it. This, in turn brings up a consideration of the pace problem; and, what is important, the point at which the runner should begin his kick. This last is limited, of course, by the athlete's natural style and ability and by a use of the element of surprise.

During the race, fine judgment calls for a cool head, undisturbed by an unreasonably fast or slow pace; the ability to let someone else carry a good pace, or to take it over oneself when it bogs; the knack of studying spots and jockeying properly; and finally, controlling one's personal feelings.

The last weapon, stamina, is obviously developed by banking miles and miles of jogging and running under the belt. Every stride the runner takes may be regarded as a tangible increase of his ability. That explains why many great runners work out twice daily, and fine runners spend long sessions on fall and winter afternoons in all kinds of weather. Long walks on the week-ends provide pleasant variety, at the same time, adding to the total development.

There is another means of developing stamina, especially that of advanced runners, during the early part of the season. A runner may take a fast, tiring workout, followed by another, a minute or so later. Some coaches, for example, find it profitable to have a boy run four quarters, one minute apart, at approximately the pace he uses for his race. Moderation should be the theme, however, in using this workout for beginners and very young boys. Besides developing stamina, this system teaches the invaluable lesson of running effectively while fatigued. The great runners are past masters at this trick.

Illustration 1 — A Good Stance — Side View. Notice the perfect body balance. The pole in the rear is aligned through the center of the body. The boxer is in excellent position to advance or retreat. Note that both legs are flexed, and the toe of the rear foot is pointed diagonally forward and not to the side. The heel of the rear foot is slightly raised. The front foot is flat on the mat, but the body weight is carried on the ball of the foot.

Illustration 2 shows a good stance—Front View. Note the straight line on the mat. The rear foot is correctly lateral and to the rear of the front foot. This affords a four-point foundation, which permits the boxer to advance, retreat, or to move his head laterally for slips and ducks. Note the legs

are flexed and both toes are pointing diagonally forward.

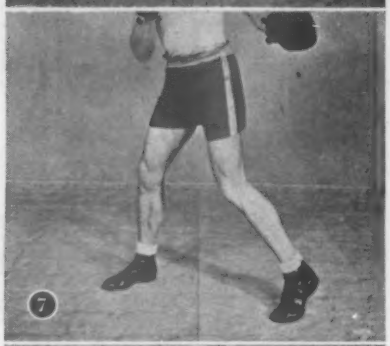
Illustration 3—An Off-Balance Forward Stance. This stance is incorrect since the head is over the front foot and the boxer cannot advance by lifting the front foot first. Note the rear leg is straight and the right toe is pointed to the side. These two points are incorrect. Note the alignment of the pole in relation to the body. A boxer from this position can retreat and counter-punch.

Illustration 4 shows another incorrect stance. The head is over the rear foot, thus preventing the boxer from the correct retreat by lifting the rear foot first. From this position, the boxer can advance successfully for combination blows.

Illustration 5—A Correct Advance. Note the front foot is slightly off the mat. The drive, the snap, or the push comes from the rear leg. Note also that the left hand is partly extended. As the left foot makes contact with the floor, the left jab should make contact with full arm extension.

Illustration 6—A Correct Retreat. Note that the rear foot is slightly raised first and that the legs are already flexed before the start of retreat. The drive, the snap, and the push come from the front foot.

Illustration 7 shows correct footwork for the left hook. The boxer's first step is to move the front foot forward first, toe pointing forward much like on a left jab. The foot will land a little more to the left than



on a jab since the left hook comes from a lateral angle and this wide position offers a better foundation and driving force. This illustration shows the second step of the left hook. Note that the toe is not forward now but has turned in the direction of the blow. Note also that the left elbow is flexed when a left hook is delivered.

Illustration 8—Footwork for Infighting. Note that the right foot has been moved forward, and that the toe of the right foot is nearly aligned with the heel of the left foot. The legs are flexed and the hands are low and preferably on the inside of the opponent's two hands. The heel of the rear foot is still slightly raised. From this position, the boxer has a good solid lateral stance, but cannot advance or retreat as effectively.

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At this point, emphasis must be laid on the need for calisthenics. They should be used both before and after each workout. A runner is effective only to the degree of his all-around development, and this applies especially to distance men. Take a look at any accomplished performer and you will be impressed by the size of his chest, which means a large oxygen supply, and by his arm, stomach, and back muscles, which add up to co-ordinated running strength. This means only one thing, and that is that one can hardly overdo the calisthenics angle. They are very essential.

There are other phases to distance running which should be treated in a more ambitious paper. My purpose was to explain and emphasize only the most important popular ways of developing fine distance runners.

Distance running grows on one. In few other fields of athletics, is there such a clear chance to develop record breakers out of average young boys. That fact probably accounts for the numerous devotees of the sport among the leading track coaches and fans the country over.

Distance running is a great character builder. A sprinter, hurdler, or jumper may slide through on sheer reflexive ability. You can be certain that an accomplished distance runner is a person who has complete control of himself, one who can harden a wavering courage, who can ignore his temporary distress and set his mind to defeating a man, as good as, or better than he himself. Coach Nicholson went so far as to say, "Distance runners make the best citizens."

The Sports Program at the United States Navy Pre-Flight School, Iowa City, Iowa

By Sam T. Selby, Lieutenant U.S.N.R.
Formerly, Director of Athletics, Otterbein College

THE sports program greatly differs from what we have come to know as intramural athletics. Factors other than the desires of the cadet are paramount. The sports program is a compulsory participation program of physical and mental training which is most intensive, rigorous, and comprehensive.

The objectives of this program are fivefold. It aims to develop in the cadet to the highest degree:

1. The ability to co-ordinate mind and body to serve him under the most difficult flight and combat conditions.
2. The ability to successfully engage in hand-to-hand combat.
3. The ability to swim and keep afloat for a prolonged period of time.
4. The ability to run speedily and far, under normal, as well as abnormal, conditions.
5. The will to win against any odds, the love of combat, the willingness to sacrifice for an ideal, obedience, stamina, determination, aggressiveness, Spartan ruggedness, and the desire to co-operate with others.

To fulfill these objectives every cadet *must* participate in active, tough, competition. This competition is of the most vigorous type possible, requiring body contact and strenuous effort. This responsibility rests, to a great extent, with the varsity and sports program competition.

In considering the objectives and continuous turnover of cadet personnel, some sports are conducted the year around. Other sports are held outside the normal season. Sports which require a large playing area for a few contestants such as squash, handball, tennis, etc., are not considered feasible, due to the large number of participants. Sports of a recreational nature only are avoided for team organization.

After considering all factors involved, the following sports have been selected in which to hold competition. They are listed by seasons with the first five called required, and established in the order listed, as facilities and numbers of the cadet personnel permit. The number of cadets to make up each competitive squad is listed.

SPRING AND FALL
1. Football 30
2. Boxing 16
3. Wrestling 16
4. Swimming 20
5. Military Track 30
6. Basketball 12
7. Soccer 20
8. Volleyball 12
9. Softball 12

WINTER
1. Basketball 12
2. Boxing 16
3. Wrestling 16
4. Swimming 20
5. Military Track 30
6. Volleyball 12
7. Gymnastics 16
8. Soccer 20

SUMMER
1. Swimming 20
2. Boxing 16
3. Wrestling 16
4. Military Track 30
5. Touch Football 12
6. Soccer 20
7. Basketball 12
8. Volleyball 12
9. Softball 16

Unit of Competition

The make-up of the competitive unit is on a twelve-squadron basis. Each squadron has a complement of three platoons or approximately 150 men.

The sports program director is responsible to the director of athletics and physical training. He has officer assistants who aid and supervise in the program. The director of the sports program keeps an accurate list of the personnel of all teams, coaches and managers, and the amount of participation of each cadet. He files and publishes once weekly the results of each game and the standing of the teams in competition. A large enclosed bulletin board in the fieldhouse displays maps of playing areas, personnel, roster, schedules, records, standings, and information essential to an effective program.

An athletic director is appointed by the sports program director for each squadron. He assumes the duties required of an athletic director with his squadron. These include supervision and instructions to coaches, and selection of personnel for all the sport squads. This officer keeps an accurate account of his teams, managers, player participation, and results, and forwards the same to the sports program office for final tabulation.

Each team has an officer coach, who is usually a platoon leader. This assignment is made by the director of the sports program from the company of officers at the base. These men have an expert knowl-

edge of the sport, and the ability to teach it.

Each coach selects one or two playing managers to assist in making up squad lists and reports, to check on the accuracy and completeness of names and initials, to see that the proper forms and game results are delivered promptly to the sports program office. Managers also assist coaches in taking a muster at the beginning and end of the sports period, which is from 1610—1810 navy time. Managers give every possible assistance to their coaches, the squadron athletic director, and officials of the game.

For the best results, contests in sports involving rugged contact are held once weekly. When the nature of the sport is less rugged, competition is held twice weekly. Each squadron meets each of the other squadrons in a round-robin schedule. This schedule operates for twelve weeks. Our swimming and track meets are scheduled for Tuesday and Thursday of each week on a dual-competition basis. All events are run in heats, each heat being a final in scoring on a dual basis. This has been very helpful because of limited time and facilities. Six dual meets can be run in one hour and forty minutes. Other adjustments in other sports have been made similar to this. Sports program activities are regularly scheduled for Monday, Tuesday, Wednesday, Thursday, and Friday. When a team is not engaged in a contest, it is operating under a well-planned practice procedure.

The following point system is used to determine squadron standings: For teams playing ONE game per week: 10 points for each win; 5 points for each tie. For teams playing TWO games per week: 5 points for each win; 2½ points for each tie.

1. Whenever a man is ordered to report for a varsity team the squadron to which he belongs will be awarded *3* points.

2. If for any reason he is removed from a varsity squad and returns to his squadron for his competition *1* point will be taken away from his squadron.

3. If he actually competes on the varsity team, with which he is working, his squadron will be awarded *5* points, and if he competes to the extent that his coach designates him as a letter-winner, his squad will be awarded *10* additional points. (In the case of any individual, points can only be awarded once during the one sports season.)

The reasons for giving points to the squadron for men who belong in that squadron and working in varsity sports are as follows:

(1) Varsity sports have first priority on the cadets.

(2) For each man of varsity calibre who is taken away from squadron competition, the strength of some squadron team is weakened.

(3) Credit should be given the squadron for their sacrifice.

The above points are then added to the points which are given for wins and ties and then a standing is compiled by the total points.

The squadron which leads the league in points has the honor of having its pennant hoisted for the time that the squadron maintains this standing. Extra liberty is given for the squadron whose record is best for the week.

THIS article was written by Lieutenant Selby while he was in charge of the sports program at the Iowa City Pre-Flight School. He has recently been detached to head up the sports program at the new pre-flight school, soon to be opened in Del Monte, California.

With this article and the one in this issue on Hand-to-Hand Combat, the series of articles, announced last fall, is concluded. The objectives of each sport have been emphasized by the writers. Although emphasis has not been put on technique, it does not need to mean that there should be less emphasis on it, on the part of the coaches in the country.

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Squadron A— 8 men furnished—4 returned—3 played—1 letterman—	45
Squadron B—12 men furnished—3 returned—8 played—7 lettermen—	143
Squadron C—10 men furnished—4 returned—4 played—2 lettermen—	66
Squadron D—12 men furnished—1 returned—8 played—6 lettermen—	135

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A College Program Adapted to War-Time Needs

By Howard G. Mundt
Physical Education Department, Carleton College

THE Physical Education Department at Carleton College has, along with most of the nation's liberal arts institutions, stepped up its activities to conform with the fitness programs so necessary in these times. It has taken a war to finally arouse physical educators that we have in the past decade had more or less a country-club type of physical education. This has not been entirely the fault of educators in this field, but has been due to the general let-down of the populace toward physical fitness. Now that we have returned physical education to its proper place in the curriculum, we should be careful to keep it in its deserved niche.

The program here at Carleton, under the newly appointed director of athletics, Walter L. Hass, has been greatly changed. The student body has taken to the program with enthusiasm, and already a change for the better has taken place in many individuals, as is shown by tests given at regular intervals.

All men students *must* participate in the physical education program unless they have a special release from the director of the health service. The time allotment for each man is one hour per day, five days a week, with intramural and intercollegiate sports of course coming as extracurricular activities.

At the beginning of the semester in September, each man is given a physical examination and classified by the health service director. This examination of all students is of utmost importance. In some instances the individual is first in need of guidance along health and nutrition lines rather than in need of an immediate program of strenuous physical activity. The students' physical education program is outlined from such reports, although the majority of men receive an "A" rating.

The first week of physical education class time is devoted to testing the physical ability of the men. The following tests are used: 1. Push up; 2. Sargent jump; 3. Chinning; 4. Speed-agility run. These tests are repeated at definite intervals and results tabulated. The program thus far, according to test results, has been highly satisfactory.

We are fortunate in having excellent outdoor facilities, with sufficient space to enable a variety of activities to be carried on simultaneously. Our fall program is conducted out of doors as long as possible. Activities of the running type were stressed this year, mainly soccer, touch football, cross country, obstacle-course running, along with calisthenics, military track and some military drill. The outdoor obstacle course has been standardized in Minnesota and state colleges have competed against each other in this form of competition. It is a fine conditioner and young men enjoy pitting their skill and strength against each other in this new form of activity.

The winter program of physical education has physical fitness as a major aim. We have a fine physical plant including a large gymnasium equipped with apparatus and a swimming pool of regulation size. The gymnasium and pool are in constant use from morning until late in the evening with physical education classes, varsity and intramural sports.

Our winter class work in physical education consists of:

1. Calisthenics—We are using the army and navy type of exercises.

2. Basketball—Fundamental skills taught; but in the main used for the conditioning values.

3. Gymnastics and Tumbling — The gymnasium is equipped with parallel bars —horses—high bar—rings—ropes—ladders—mats and stall bars. It is surprising to note how few college men have had any apparatus work in high school. Many high schools do not have apparatus and many, that do have it, never use it. A fine opportunity has arisen for physical educators to make use of this activity. Apparatus work and tumbling, given in the proper manner and progression give the individual balance and help eliminate fear.

4. Swimming—The aim at Carleton is "every man a swimmer." In order to gain this end, tests are given by which men are classified in accordance to their ability. The following tests are used: a. Swim five lengths of the pool using two different strokes. b. Running dive off the springboard. c. Tow a body the length of the pool. d. Swim at least forty feet under water. e. Surface-dive and recover an object. f. Stay afloat five minutes in deep water. Anyone not passing these tests is classified accordingly and given proper instruction.

5. Wrestling—Given more for conditioning than finesse. Holds and breaks demonstrated and practiced. Men paired off for matches.

6. Boxing—Blows and parries given in mass instruction and matches arranged.

7. Indoor Obstacle Course—Devised by Roy L. Carlson of the Physical Education Department, this course tests the all-round condition of any individual. All apparatus available is used.

8. Individual and combination stunts.

The spring program is given outdoors as soon as weather permits with emphasis on: 1. Calisthenics; 2. Track; 3. Military track; 4. Obstacle-course running; 5. Speed agility run; 6. Softball; 7. Tennis; 8. Volleyball; 9. Swimming.

We feel that our physical education program conforms to the views of service physical education authorities. When this conflict ends, physical educators should develop this type of program to a still greater extent. Frederick Rand Rogers says, "By physical fitness we mean capacity for purposeful physical activity, including particularly the efficiency of organic powers and fundamental skills." When we read the 1941 statistics of two million men examined for service and one million rejected, thirty per cent at twenty-one years of age, it is obvious that somewhere along the line our job has not been thorough. Physical education for everybody, not for a few, is the answer.

Contrary to the belief of some college authorities that inter-collegiate athletics should be dropped for the duration, we believe that this type of competition should be carried on as long as possible. Carleton College is ideally situated for such a type of program. Only forty miles from St. Paul and Minneapolis with their many colleges, we have an advantage as far as short transportation distance is concerned. Then too, St. Olif College is located in Northfield and an extended schedule may easily be arranged.

Our program of intercollegiate athletics is a fine one. The activities are so varied that almost all men can participate regularly in some sport. The physical education and coaching staff cannot begin to handle all these activities, so coaches are recruited from the student body. These student coaches, under the direction of the coaching staff, take great interest in their work, and team members under their jurisdiction follow orders explicitly. That this type of coaching has shown results is evidenced by the 1942 cross country team which, under the direction of Track Captain Warren Grunert, won the State Championship, not losing a meet.

Our intercollegiate program takes in the following sports: 1. Football; 2. Cross country; 3. Obstacle-course running; 4. Basketball; 5. Wrestling; 6. Swimming;

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Stanford University, California

7. Gymnastics; 8. Ice hockey; 9. Baseball; 10. Track; 11. Tennis; 12. Golf.

Participation in such competition gives a college student that something which is so important in these war times Edwin H. Atherton, Commissioner of the Pacific Coast Conference, sums it up in these words: "National Security today requires the leadership of men with physical and mental stamina. These may best be found among college men with athletic training who possess the coordination of clear minds with sound bodies, and who know the meaning of discipline and cooperation."

The intramural program, under the direction of Mr. Carlson, gives any student the opportunity of participating in the games and sports which he enjoys. These sports also develop healthy bodies through muscle activity of a vigorous nature. The intramural program is non compulsory and teams usually compete on a dormiatry-floor basis. The program lists the following activities:

Fall—1. Cross country; 2. Touch football; 3. Soccer; 4. Obstacle-course racing.

Winter—1. Basketball; 2. Wrestling; 3. Boxing; 4. Swimming; 5. Handball; 6. Skiing; 7. Ice skating.

Spring—1. Obstacle-course racing; 2. Softball; 3. Tennis; 4. Golf; 5. Track; 6. Swimming.

We hope and believe that the program at Carleton College is accomplishing the purpose of contributing to health and its maintenance, giving greater body strength and physical vitality to its students. We are endeavoring to develop in students the desire to participate now and after college days are ended. We believe our program is contributing beneficially to the emotional stability of the men taking part. If our physical education program and other physical education programs are successful in accomplishing these objectives, we feel that the future success of our country will be assured.

A Challenge to the Physical Education Profession

By Ellwood Geiges
Division of Physical Fitness, Philadelphia

WE have come to the point in this emergency where the great majority of our citizens are conscious of the necessity for physical fitness. The army and the navy have clearly demonstrated the immediate need of improved body-building schedules for our students in schools and colleges. They have approved a power-building program based on vigorous conditioning activities, stressing the desirable characteristics that may be attained through participation in combative exercises and in competition in sports and games. The War Manpower Commission is equally interested in a program that is aimed at power maintenance of a civilian population engaged in all forms of industry, agriculture, and home life. Loss of time resulting from general debility and illness has been a seriously retarding factor in the production of materials for the army and navy and civilian use. The correction of such conditions covers a wide area and includes all peoples, but it is a vital necessity and must be met at once. The task is tremendous.

A great number of teachers of physical education, however, are primarily interested in that division of our program which affects the youth of our nation attending schools. When we look back on the history of physical education in the school systems of America, we realize how inadequate it really was. Particularly in our sports and games program was attention chiefly devoted to those who demonstrated obvious physical abilities—definitely a selected group—and the underdeveloped pupil who really needed attention was too often disregarded. While we are not *entirely* to blame for the present physical condition of our people, we will certainly agree that our philosophy, as well as our programs, should be revised to meet the needs of the present emergency and, at the same time, plan for a physical education occupying its proper place in the curriculum, when this war is over. The majority of our rejects for the armed forces are the result of an inadequate recognition of health standards and a failure to provide facilities and authority to remedy defects, when discovered. Certainly the physical educators cannot be blamed for the great number who failed to satisfy the entrance requirements into the armed forces. We should, however, be concerned at once with the present importance that has been properly placed on the value of exercise and health instruction as it affects all school boys and girls, and as it results in a better physical adult. We must develop a program of activities which will provide fuller realization of the wide services we are capable of giving, services which, we believe, will go far to insure strong, robust, and enduring bodies; and we must act at once to accomplish this end. We must have allocated to us sufficient roster time to make such a program effective. This is a big task, but, at the same time, it is a great opportunity for the establishment of physical education as one of the constants in the core curricula for all students attending schools and colleges. To accomplish this, great difficulties must be surmounted. The armed forces have depleted the ranks of our professionally trained and experienced leaders and teachers. The already crowded curriculum must be extended, or some less important subjects

must be curtailed in order to accommodate a daily period for physical fitness. Will we take the leadership in making these adjustments? It will mean that more work and longer hours will be demanded of us. We must devise ways in which we can accomplish maximum results in spite of the present shortage of teachers and the lack of facilities. It is a challenge to our profession. It matters little that few of us are fully prepared to meet this emergency. Industry and military forces have tackled their jobs under the same handicap, and we must demonstrate that we are equal to the task. It is up to us to accept this assignment and to do our utmost. We must not fail! Our cause will not succeed and our contribution will be negative if we spend most of our time thinking of the ways this job cannot be done. During the past twenty-five years too many of us have fallen into the rut of functioning only under optimum conditions or of being content to complain about inadequate equipment and facilities. Perhaps we, ourselves, have become soft. Let us show our colleagues that we have what it takes. Let us grasp by the forelock this opportunity of a lifetime and give it a twist, turning it into the direction that it should go, and let us not stand idly by deploring the inadequate teacher supply or the lack of space and facilities. Let us dedicate ourselves to the task of doing a man-sized job. Nobody will deny that the going will be tough, but it is not impossible.

Let us reorganize our thinking as well as our program in order that we may present a united front. Let each one of us resolve to mobilize all his resources around the well-planned and comprehensive program which is contained in the manual recently distributed by the Physical Fitness Section of the United States Office of Education.

What the Colleges and High Schools Can Do to Help Prepare Boys for Hand-to-Hand Combat As Soldiers

(Continued from page 27)

hand-to-hand fighting: 1. Running, jumping and climbing to develop endurance and ability along those lines; 2. Calisthenics to develop co-ordination, precision and discipline; 3. Push-ups, sit-ups, chinning to develop strength and stamina; 4. Tumbling to develop agility, timing, co-ordination, alertness, and learning to keep one's head in all positions and conditions; 5. Individual combat contests; 6. American wrestling tactics; 7. American boxing; 8. Judo, jiu-jitsu and hand-to-hand combat tactics.

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Requirements for High-School Victory Corps

BECAUSE of the many requests for additional information regarding the High-School Victory Corps which have been received at the office of this publication, the requirements for general membership and for the five special divisions are reprinted. The insignia (exact size and color) are shown on cover 3.

The Victory Corps bulletins have been distributed by the United States Department of Education to the principals of all secondary schools, to state superintendents, and to city, county and diocesan superintendents. Additional copies of these bulletins may be secured by writing to the Department of Documents, Washington, D. C. The price per copy is fifteen cents.

Since one of the electives in the special divisions of the Victory Corps is a program of military drill, information has been sought by high school administrators on inaugurating drill in their schools. The official Infantry Drill Manual is, of course, the most authoritative source for this program. A copy of the manual may be secured from the Superintendent of Documents at a cost of thirty cents.

Students should not write us for insignia. They must file applications for membership in all divisions with the principal of the high school, or the person designated by him to organize the Victory Corps. (For application blank see page 6, October issue.)

Coaches are expected to take an important part in the organization of Victory Corps, since participation in physical fitness programs is required in all divisions.

General Membership

1. The student should be participating in a school physical fitness program appropriate to his abilities and needs in the light of his probable contribution to the Nation's war effort.

2. The student should be studying or have studied school courses appropriate to his age, grade, ability, and probable immediate and future usefulness to the Nation's war effort, within the limits of the facilities of the school.

3. The student should be currently participating in at least one important continuing or recurring wartime activity or service of the types indicated in the suggestive list of Victory Corps service activities: 1. Air warden, firewatcher, or other civilian defense activity; 2. U. S. O. volunteer activities; 3. Red Cross services; 4. Scale model airplane building; 5. Participation in health services, such as malaria control; 6. Farm aid, or other part-time employment to meet man-power shortages; 7. School-home-community services, such as salvage campaigns, care of small children of working mothers, gardening, book collection.

Production Service Division

a. Must have pursued or be pursuing a program which includes courses which are definitely pointed to preparation for work in the field of agriculture.

b. Must have pursued or be pursuing a program which includes courses which are definitely pointed to preparation for work in the field of trades and industry.

**c.* Must be participating in a physical fitness program.

d. Must have engaged or be engaging in part-time work, either paid or voluntary, in some form of production.

e. Must be participating in a program of military drill.

(c) required, select two others.

Air Service Division

a. Must have pursued or be pursuing a program which includes one year of high-school physics and three years of high-school mathematics.

b. Must have pursued or be pursuing a course in preflight aeronautics.

c. Must have pursued or be pursuing a course in automotive mechanics, radio, electricity or a vocational shop course which gives preliminary preparation for the servicing, maintenance or repair of aircraft.

**d.* Must be participating in a program of physical fitness.

e. Must be participating in a program of military drill.

(d) required, select two others.

Community Service Division

a. Must have pursued or be pursuing a program which includes courses definitely pointed to preparation for service occupations at the professional level.

b. Must have pursued or be pursuing a program which includes courses definitely pointed to preparation for commercial, distributive, homemaking or similar community service occupations to be entered upon leaving high school.

c. Must be engaging in some form of part-time work, either paid or voluntary, in some form of community service.

**d.* Must be participating in a program of physical fitness. (Required)

e. Must be participating in a program of military drill.

Sea Service Division

**a.* Must have pursued or be pursuing a program which includes courses in high-school mathematics, preferably through plane trigonometry.

b. Must have pursued or be pursuing a program which includes at least one year of high-school laboratory science, preferably elementary physics.

**c.* Must be participating in a program of physical fitness.

d. Must have pursued or be pursuing a course in the elements of navigation.

e. Must have pursued or be pursuing one or more shop courses.

f. Must be participating in a program of military drill.

(a) and *(c)* required, select one other.

Land Service Division

**a.* Must have pursued or be pursuing a program which includes at least one year of high-school mathematics, or its equivalent in shop mathematics.

b. Must have pursued or be pursuing a program which includes at least one year of high-school laboratory science or its equivalent in shop science.

**c.* Must be participating in a program of physical fitness.

d. Must have pursued or be pursuing a program which includes one or more special preinduction courses.

e. Must have pursued or be pursuing a program which includes one or more shop courses.

f. Must be participating in a program of military drill.

(a) and *(c)* required, select one other.

Knudsen Inspects Spalding War Manufacturing

A group of army ordnance officials headed by Lieut. Gen. William Knudsen and Brigadier Gen. Guy H. Drewry recently visited A. G. Spalding & Bros. to inspect the company's progress in the production of war materials.

Below, W. T. Brown (right), Spalding Vice-President in charge of manufacturing, conducts Knudsen (left) and Major Collins (center) on a tour through one of the Spalding plants.

At right, plant manager Frank Williamson (pointing to machine in top photo) and Jerry Douglas discuss various production problems with Knudsen.

A Brief Review of the Bowl Games

BECAUSE of the demand for army and navy hardening programs, so that coaches and administrators of the high schools and colleges might know what work to emphasize in their physical fitness programs, the review of football offenses and defenses of the fall of 1942 was omitted from the November issue of the ATHLETIC JOURNAL, as had been the custom for many years.

The army and navy programs have been covered; the program of Physical Fitness Through Physical Education for the Victory Corps has been distributed by the United States Department to the secondary schools; the suggested program for the colleges is about ready for distribution.

The football review, limited to Bowl games, and of necessity brief, will serve as a record of the 1942 trend of offense and defense, and will answer the requests for information on the style of play used in the New Years Day Games.

The Rose Bowl

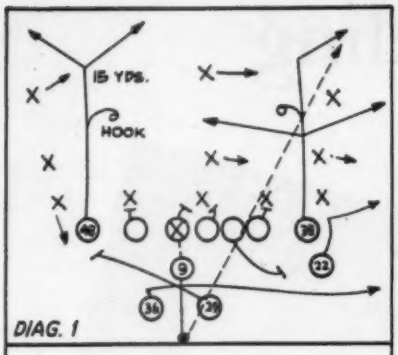
In the man-in-motion play to the right (Diagram 1) Waterfield (9) fakes to 29 or fakes a pass to (36) in motion and then throws to either end. It is sometimes a long running pass, a hook pass or to the right end, swerving as shown in the diagram. R. E. Baldwin (38) caught this pass in the Georgia game for a 20-yard gain.

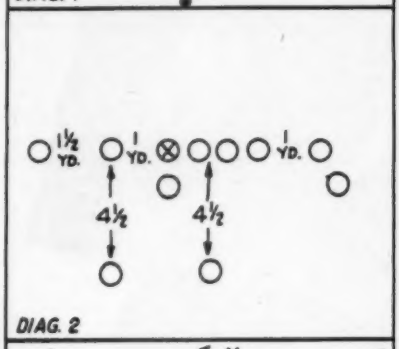
The U. C. L. A. Bruins employed a single-wing formation with the quarterback under the center. It is generally known as the QT formation.

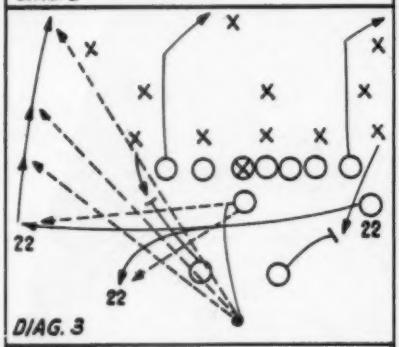
The left half lines up (Diagram 2) four to four and one-half yards back of the left tackle and the fullback the same distance directly back of the gap between the two guards to the right of center. The right half is a yard back of the right foot of the right end. The quarterback handles the ball on practically all plays and the general offensive type of play resembles that of the T formation. The left tackle is split away a half to a yard from center and the left end varies his position one to two yards away from the left tackle.

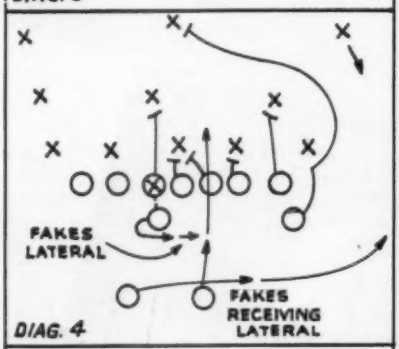
Diagram 3 shows the right half in motion. The quarterback may throw a lateral from his original position to 22 or a long flat farther out, or he may go back six to eight yards and pass as diagrammed to any of the three receivers, depending on the defensive pass set-up. If 22 is covered, the long lateral is not to be used. This worked early in the season, but the long pass to 22 has been successful throughout the season.

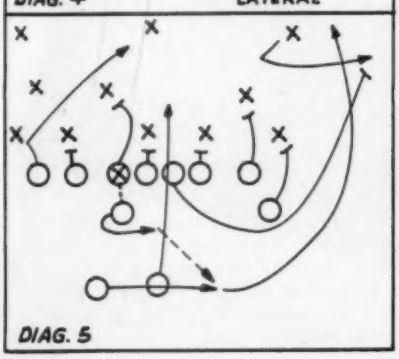
The straight-line buck (Diagram 4) has been very successful all season. Diagram 5 shows a variation.

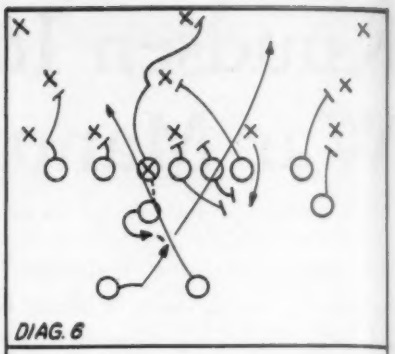


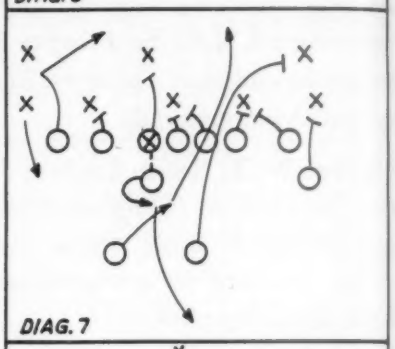


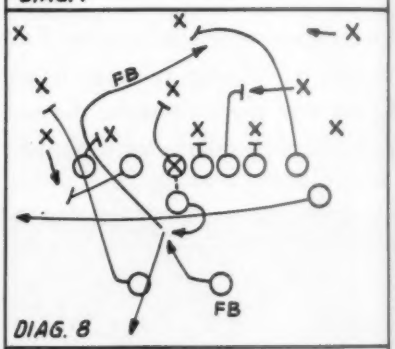


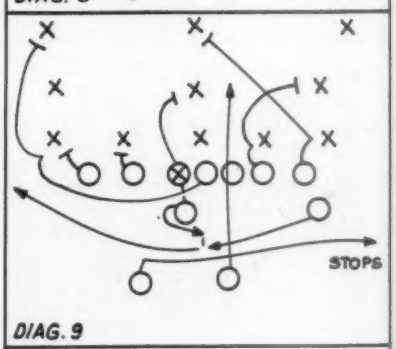


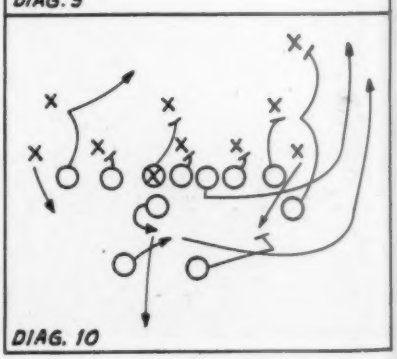


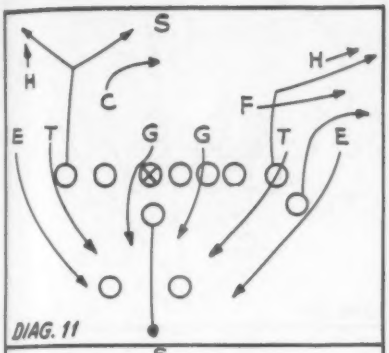












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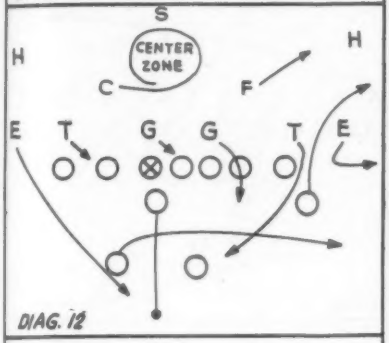

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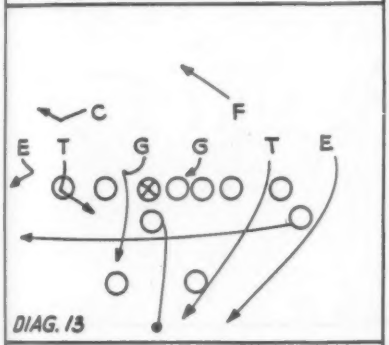

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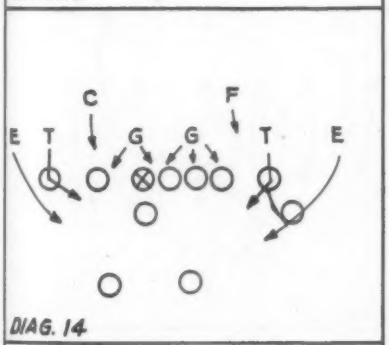

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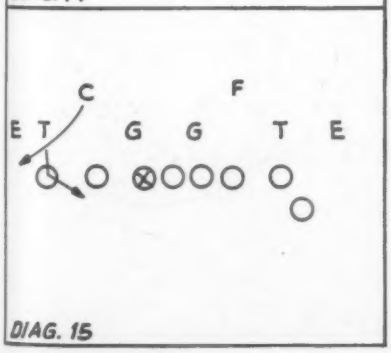


DIAG. 15

In the lateral to the left half from a fake fullback buck, the guard leads the play as shown in the diagram. The quarterback laterals to the left half, after faking the fullback, as shown in the previous play.

In the left half cross-buck (Diagram 6) the quarter fakes the ball to the fullback through center. The left half takes a step to the right and takes the ball as shown in the diagram. Note that the second man to the right of center may cross on the guard or take the tackle. The man next to the center may block straight away or cross on the tackle, depending on the signal.

Diagram 7 shows a left half buck with the fullback leading the play.

In Diagram 8, the right halfback is in motion. The left half and the fullback fake to the left and the fullback takes the ball between the shortside tackle and the end. After the quarterback hands the ball to the fullback, he runs back as he does on a pass play. Note the cross-blocking by the left end and the left tackle as shown in the diagram. Using this play Ken Snelling, fullback, made the longest run from scrimmage in the Georgia-U. C. L. A. game.

Diagram 9 shows the left halfback in motion. The quarterback fakes the ball to the fullback for a buck through the line and gives it to the right half for an end run. The fullback should put up a good fake, as if he has the ball.

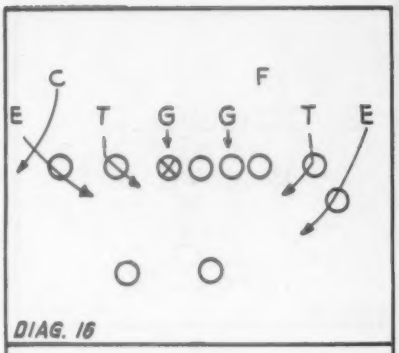
In Diagram 10, an end run to the right, the quarterback hands the ball to the left half and then goes back and fakes a pass.

The general pass defense set up by Georgia is shown in Diagram 11. The ends rushed aggressively, at least four or five men rushing the passer. The fullback covered the flat on a pass situation. The center (Ehrhardt) rotated in back of the line to cover the middle and was especially good. The left half, twelve yards back, watched the right end, as he came into his zone. The right half duties were as diagrammed. The safety played the middle deep zone and played deep the man and the ball in his territory.

For the pass defense for a man in motion to the right, Georgia's left defensive end went out with him most of the time. The line swerved in the same direction as the man in motion. Otherwise, the usual pass defense obtained.

For the man in motion to the left, (Diagram 13) Georgia's entire line drifted to the right with the man in motion, but kept their spacing intact. The center dropped back if the play looked like a pass. The fullback took the middle zone back of the line. The right end took the man in motion. The right half took the deep man in his territory. The center took the short man and the end the flat man. The left half and safety watched their respective zones.

Note the fairly wide tackle play, in front of the offensive ends in the 6-2-2-1



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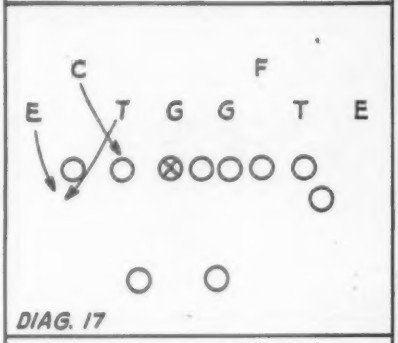

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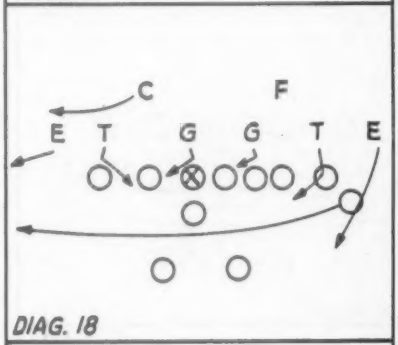

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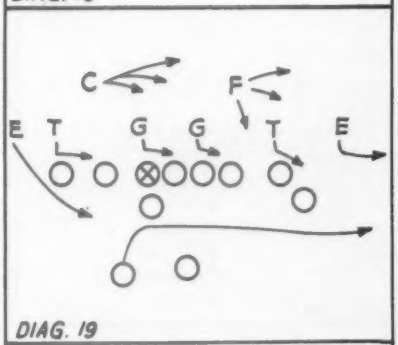

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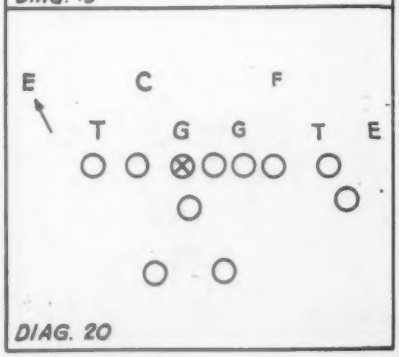

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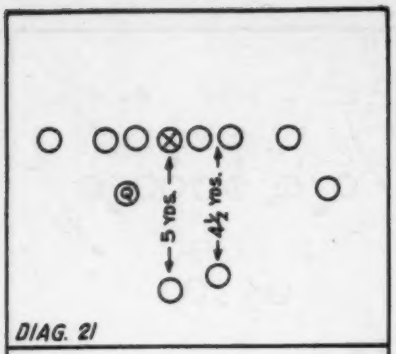

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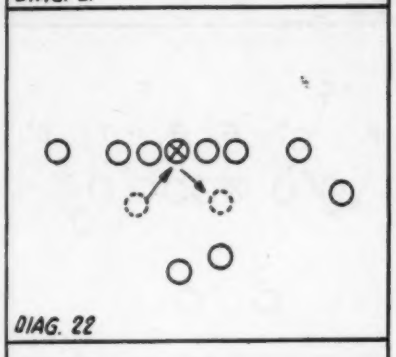
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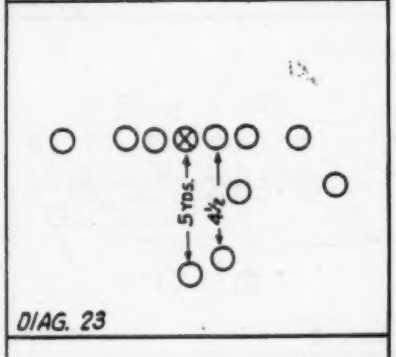

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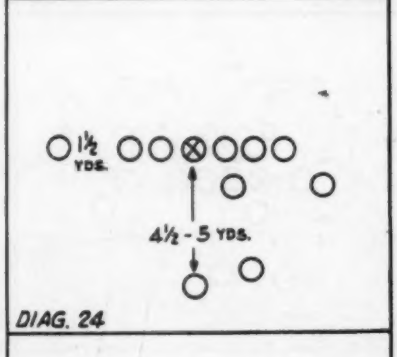

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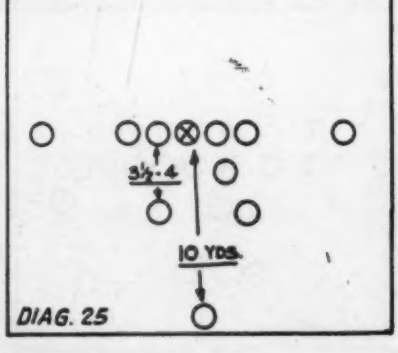


DIAG. 25

line defense, used by Georgia (Diagram 14) ends. The exceptions are shown in Diagrams 15, 16 and 17. The defensive left guard lined up about a yard back of the line of scrimmage and did not try to charge through too much, rather varying his direction and often feinting one way and going another. The right guard lined up closer, but played a similar type of defensive game.

These variations in the defensive play of the line men were designed to "gum up" the offensive assignments of the opponents and to stay out of mousetraps.

In the line defense used by Georgia on a man-in-motion play to the left, Diagram 18, the Georgia line slid to its right, but the spacing was held intact.

Diagram 19 shows the charge in direction of the man in motion to the right. When Georgia changed its defense from a 6-2-2-1 to a 5-3-2, the defensive right end dropped back and the right tackle stayed out in front of the offensive left end (Diagram 20). The assignments were practically the same as in the 6-2-2-1 as the end still took the man in motion toward his side, in case such a play was used.

The Sugar Bowl

The outstanding features of the Tulsa-Tennessee game in the Sugar Bowl was the hard running of Cifers and Fuson of Tennessee, the hard charging line of Tennessee and the kicking and passing of Dood of Tulsa University.

It was a football game well played but showed that a team must have more than a passing attack. The University of Tennessee made their running and passing attack click, while Tulsa University made only their passing attack work.

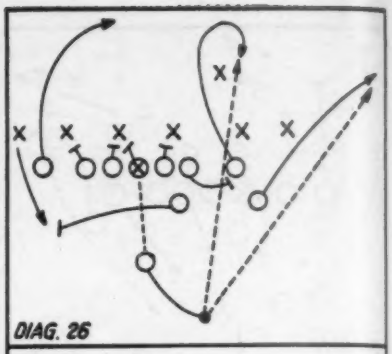
Both teams used a balanced line on offense with the backfield shifted strong, right or left. Tulsa University lined up as shown in Diagram 21. They ran or passed from this formation. Other times the quarterback moved in and took the ball from the center or shifted over to the strong side.

Tulsa University used the formation shown in Diagram 23 the greater percentage of the time.

The University of Tennessee used the formation shown in Diagram 24 with strong right and left. The quarterback faced the weak side and was in a position to receive the ball from center. He was in the same position on a deep kick formation.

A hook pass to the right end or to the wing-back out to the flank, as used by Tulsa is shown in Diagram 26. The center passed the ball back, face high to the tail-back on forward pass plays.

In Diagram 27 the fullback received the ball from center, drove in and gave it to the blocking back who lateralled it back to the tail-back. The tail-back either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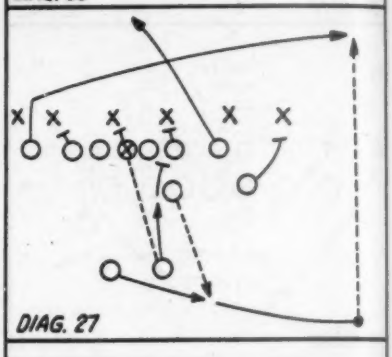
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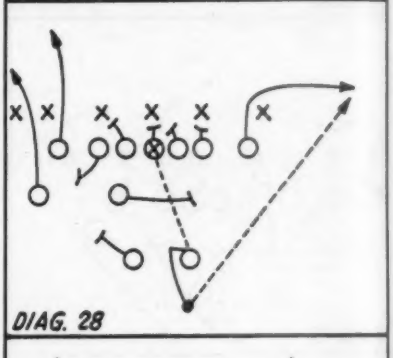
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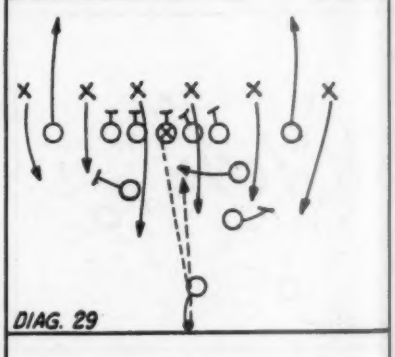
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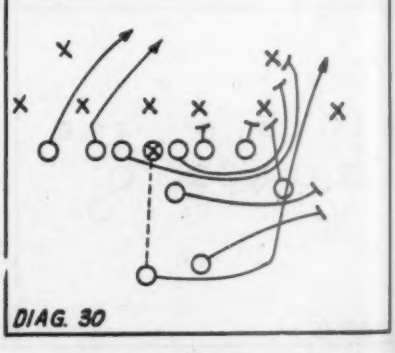
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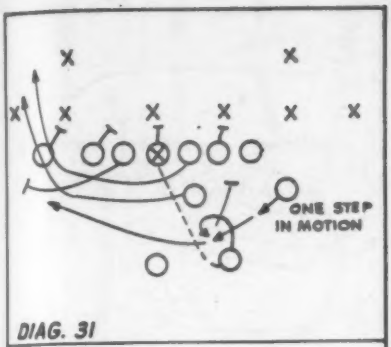

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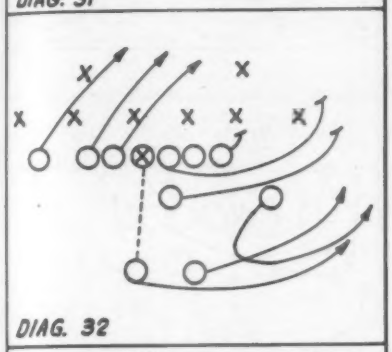
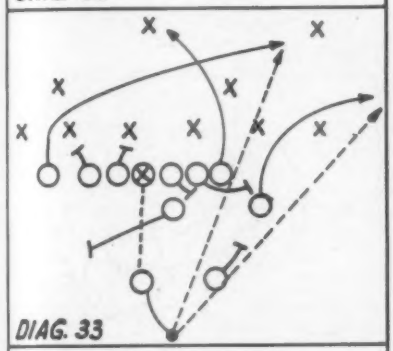

DIAG. 32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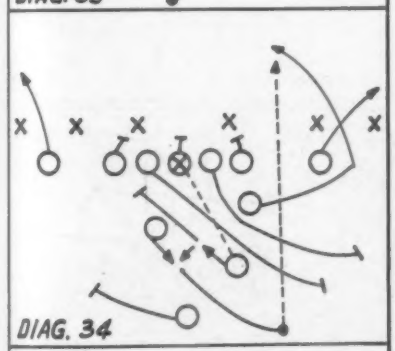
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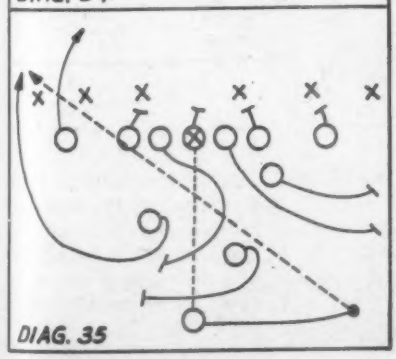

DIAG. 35

passed or ran with the ball.

Diagram 28 shows a quick pass to the right end, out in the flat.

In the screen pass from a deep kick formation shown in Diagram 29, the two ends went down the field. The line from tackle to tackle held and let the opponents through. The close-up back on the strong side faked a block and then moved over behind the screen. The deep man received the ball from center, stepped forward one step and then dropped back and passed the ball to the back behind the screen.

You will notice that Tennessee used two men on the defensive tackle and end in their groundgaining off-tackle play, shown in Diagram 30.

Diagram 31 shows a Tennessee reverse with the right half carrying the ball.

In the wire end run, shown in Diagram 32, the wing-back starts in motion to his left, swings wide to the right and leads the play.

Diagram 33 shows a pass used successfully by Tennessee. Whenever their tail-back passed, the center passed the ball back shoulder high.

The Cotton Bowl

In the University of Texas-Georgia Tech game, Texas used a deep kick, single-wing and double-wing back formations.

Diagram 34 shows a reverse forward-pass play from a deep kick formation. The ball was snapped back to the full-back who drove forward to his left, and gave it to the left halfback. The left half came back and passed to the right half-back.

In the pass play, shown in Diagram 35, successfully used by Texas, you will notice that the left halfback starts to his right, spins to his left and goes out to the flat to receive the forward pass from the tail-back. The fullback also spins and goes to his left for protection of the passer.

Diagram 36 shows a Texas reverse in which the ball is passed to the fullback, who fakes to the wing-back and then hits inside the defensive left tackle.

A Texas forward pass play from the single wing-back formation is shown in Diagram 37.

Diagram 38 shows an off-tackle play used by Texas from the double wing-back formation.

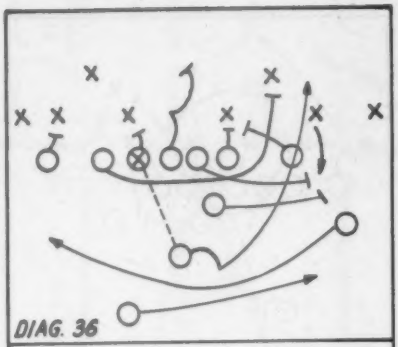
Diagrams 39-43 show a few of the plays used by Georgia Tech, whose players showed exceptional ability in concealing the ball.

In Diagram 39 an end-around play is shown.

The platter play (Diagram 40) was used for a scoring play. The tail-back receives the ball from center, steps back and fakes a forward pass. The wing-back takes the ball from the tail-backs hand.

In Diagram 41, a trap play on the defensive left guard is shown.

Diagram 42 shows a check play for the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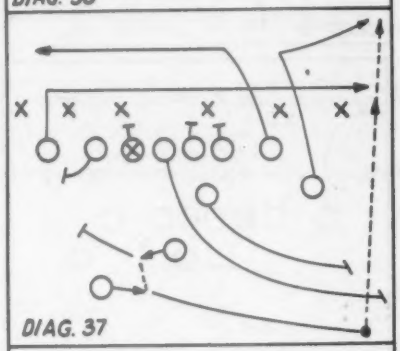
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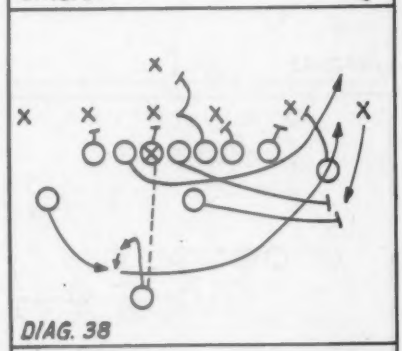
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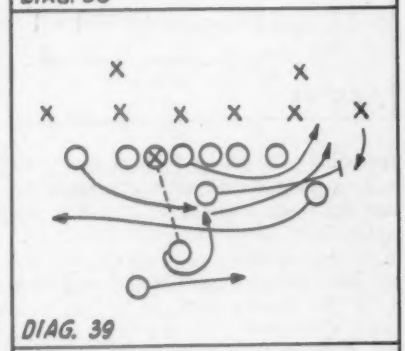
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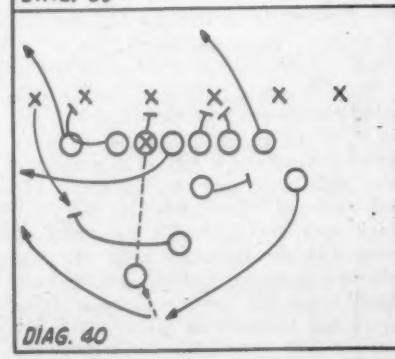
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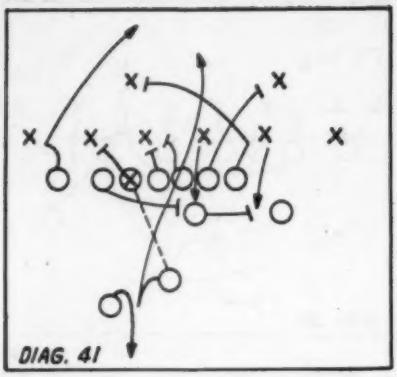
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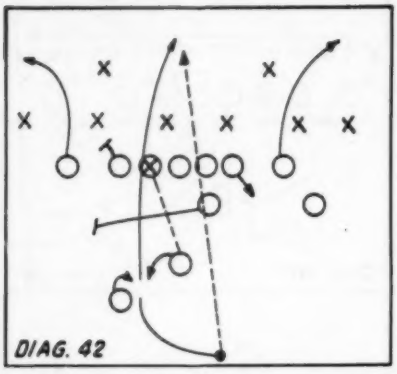
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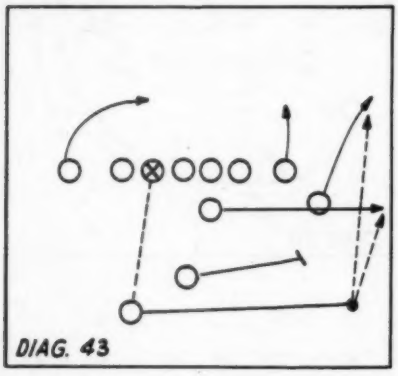
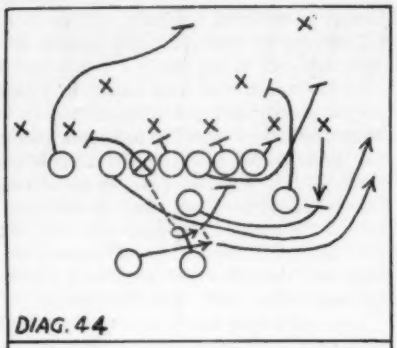

DIAG. 43

preceding play. The fullback gives the ball to the tail-back, drives through the line and receives a forward pass from the tail-back.

In the running pass, Diagram 43, the tail-back usually passed to the wing-back or to the blocking back.

University of Georgia Offense
Diagrams 44-52

The University of Georgia used a single wing-back offense with the strong-side end in tight and the weak-side end detached about a yard and a half. The wing-back was outside the end about a yard. The tail-back and fullback lined up five yards back with the tail-back's toes lined up even with the fullback's heels—in other words a "heel-toe" line up. The fullback handled the ball most of the time, giving it to the tail-back on strong-side plays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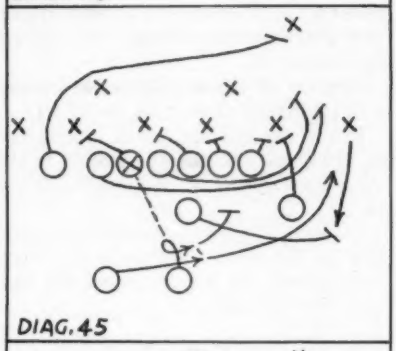
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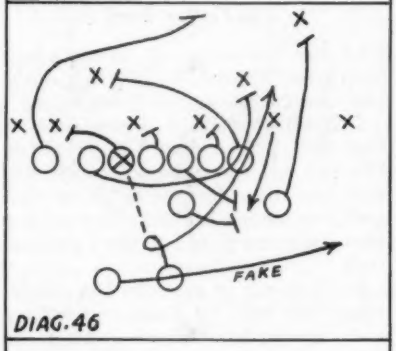

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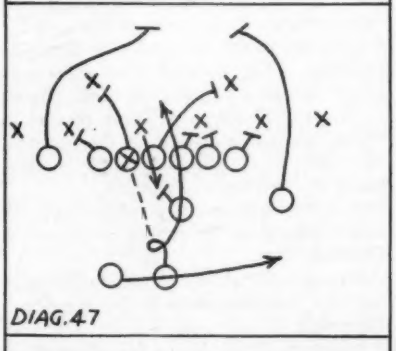
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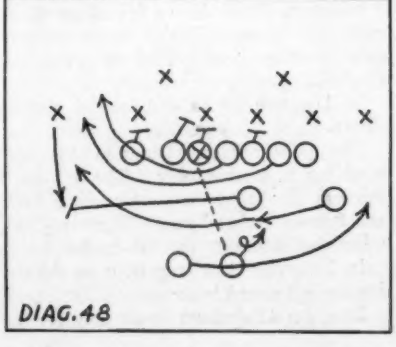
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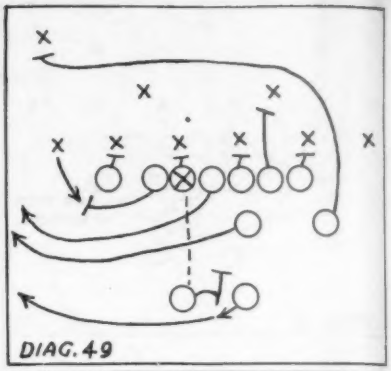
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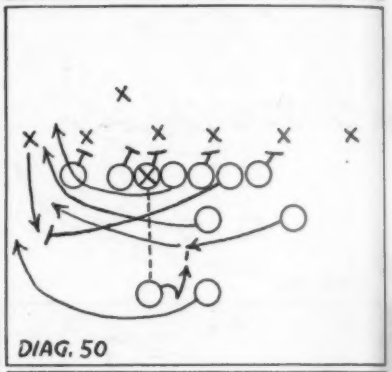
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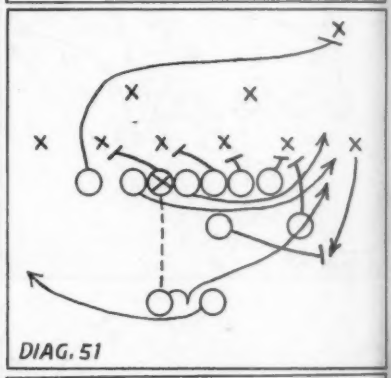
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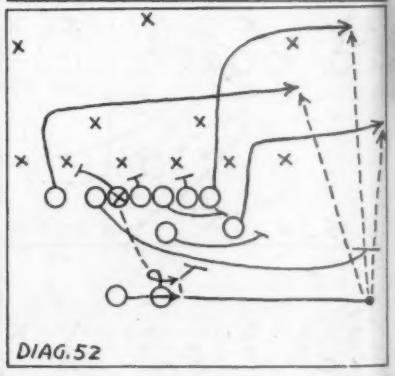
DIAG. 52

and handing it to the wing-back on weak-side plays; then, faking to the wing-back or tail-back on spin plays into the line. The fullback also handled the ball on pass plays giving it to the tail-back who either faded back or ran toward the side line for a running pass.

TRAINERS JOURNAL

SECTION

The NATIONAL ATHLETIC TRAINERS ASSOCIATION

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Something About the Anatomy of the Ankle Joint
Wilbur Bohm

The Ankle Wrap as a Preventive
Hank Crisp

Cross-Country Running Is the Oldest and Best Physical Conditioner
Mike Ryan

Eddie Wojecki, former trainer at Louisiana Tech, at work on a cadet, at the Athens, Georgia, Pre-Flight School.

Something About the Anatomy of the Ankle Joint

By Wilbur Bohm

Athletic Trainer, Washington State College

WITH the article in this issue on *The Ankle Wrap as a Preventive* and with the one scheduled for March on *The Treatment of Ankle Injuries* by Fitz Lutz, it seems fitting to have before us some information on the anatomy of the ankle joint. I have used the drawings and some descriptive material from the *Training Room Manual*, published by the Cramer Chemical Company and wish to thank this organization for their permission to use it.

Diagram 1 illustrates the medial aspect of the bones of the right foot.

Your anatomy book will divide the foot into three parts, the tarsus consisting of seven bones, the metatarsus, five and the phalanges, fourteen.

From an athletic angle we divide the foot into two parts, the longitudinal arch extending from 1 to 6 and the transverse arch which includes the nineteen bones of the metatarsus and phalanges, and might also include all the bones of the tarsus except the talus and calcaneus which are shown as 1 and 2. In other words, there is an arch the length of the foot and another the width of the foot.

The keystone of this longitudinal arch is held in place at a, b, and c, by the plantar ligaments. The close relationship of this arch to the ankle joint stresses the importance of supporting it well, during the entire period of treatment, as well as for sometime after a sprain of the ankle joint, as a traumatic flat foot may result from an injury to this arch. It also makes it imperative to apply some form of good support to it, during the period lapsing between the removal and retaping of the injured ankle. Six or seven days after the application of adhesive tape to a part, the tape should be removed, and the skin left exposed to the air for twenty-four hours, before adhesive tape is applied to the part again.

Just above 2 are the tibia and fibula carrying the weight of the body. This weight is sustained and diffused by these two arches and when conditions are normal, freedom of action and buoyancy of carriage are the result.

One important thought to keep always in mind is that the two protruding, so-called ankle bones are not a part of the foot; one is an extension of the fibula forming the external malleolus, the other the tibia forming the internal malleolus.

The following articles will appear in the Trainers Section this spring:

Treatment of Ankle Sprains—Fitz Lutz.

Physiotherapy—Use of Heat Treatments and Whirlpool Baths—Bill Dayton.

Treatment of Knee Injuries—Mickey O'Brien.

Shoulder Injuries—Eddie Wojecki.

Hand and Wrist Injuries—Phil Hudson.

The arch, which is called the foot, is merely a carriage for these two bones and the body above, and may be compared to a saddle resting upon the back of a horse.

Another thought to remember is that an arch, called the foot, weighing about two pounds, carries a weight of approximately 165 pounds.

Diagram 2 illustrates a lateral aspect of the ankle. It is presented to show the

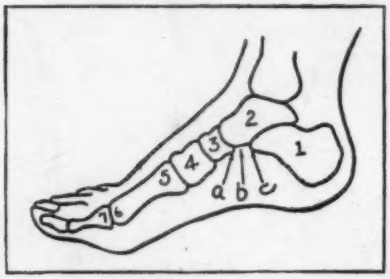


DIAGRAM 1

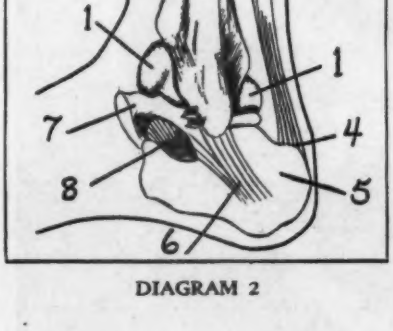


DIAGRAM 2

bursae with relation to the body structure. The two bursa, (1), serve as shock absorbers, as well as to prevent friction. They are fibrous sacs, lined with a synovial membrane, and when they are injured, fluid is poured out by the cells in the membrane, and the sac is filled with fluid causing distention. A bursitis results. These bursae, as well as other bursae in the region of the ankle, may be injured in a sprain of the ankle joint. Hence, a bursitis is a common complication in the sprained ankle, the tibia, 2, and the fibula, 3. One of the most common complications of an ankle sprain, is a fracture of the lower end of the fibula, at a point about one and a half inches above the external malleolus, or at a point formed by the extension of the fibula down over the outside of the ankle. When not a complete fracture, it may be broken only partially through, and a so-called green-stick fracture results. This brings out the importance of having the sprained ankle joint X-rayed as a routine procedure.

In this diagram are shown the tendon of Achilles, 4; the calcaneus (heel bone), 5; the lateral talocalcaneal ligament, 6; the talus, 7; and the anterior talocalcaneal ligament, 8.

The synovial membrane invests the deep surfaces of the ligaments and sends a small process upward between the lower ends of the tibia and fibula.

Keep in mind the lateral calcaneal ligament, 6, on outward sprains. When it is stretched beyond normal, the synovial membrane is injured allowing fluid to flow out into the area.

Diagram 3 illustrates the medial aspect of the ankle and outlines some of the ligaments that may be injured: the talonavicular ligament, 1; the deltoid ligament, 2; posterior talotibial ligament, 3; the medial talocalcaneal ligament, 4; the posterior talocalcaneal ligament, 5; the long plantar ligament, 6; the plantar calcanconavicular ligament, 7; the calcaneocuboid ligament, 8 and the medial cuneonavicular ligament, 9.

Keep in mind here that the deltoid ligament, 2, fans out over a large area and greatly restricts movement in an outward direction. When this ligament is strained or torn, it causes one of the most serious complications of an ankle injury. This particular ligament is composed of white fibrous tissue, which has a poor blood sup-

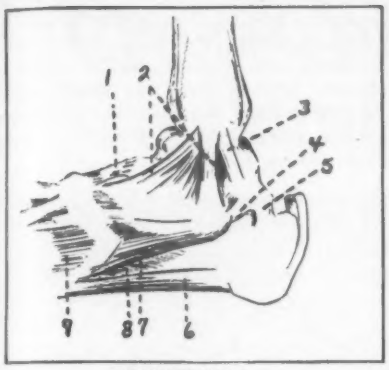


DIAGRAM 3

ply, and as a result it takes a long time for the torn ends of the ligament to become "cemented together," and, likewise, it takes time for an overstretched ligament to regain its normal tone, and lose its laxness due to having been overstretched. Hence, continued support in the form of adhesive tape should be applied to this particular ligament, whenever it may be placed under some undue strain, even after healing has taken place. This prevents further sprains of the particular joint, and thus the chronically weak ankle is prevented. After the healing of an ankle injury, I tape it for each succeeding contest the remainder of the season of any sport.

Diagram 4 illustrates a posterior horizontal bisected view (coronal section) of the bones of the left ankle showing ligaments that may be injured: the anterior tibiofibular ligament, 1; the calcaneofibular ligament, 2; the deltoid ligament, 3; and the anterior astragalus (talus)—tibial ligament, 4.

It is fair to assume that any or all of these ligaments may be injured when an ankle joint is sprained. It is also quite likely that the tendons and muscles in the region of the ankle joint are also exposed to injury when the ankle is sprained, and as a result we may have numerous complications that may accompany the sprain of the ankle joint.

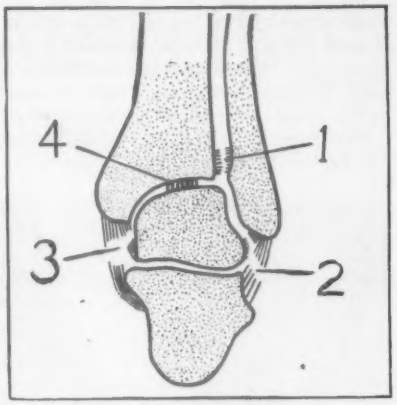


DIAGRAM 4

The Ankle Wrap as a Preventive

By Hank Crisp

Head Civilian Trainer, United States Navy Pre-Flight School, Athens, Ga.
Formerly Assistant Athletic Director
University of Alabama

WHEN twenty-four hundred earnest young men spend four hours or more every day hurling themselves through one of the most comprehensive physical toughening programs of this war, the experience is likely to prove as valuable for the trainers who handle them as for the young men themselves.

Such is the case at our navy pre-flight school in Athens, Georgia, where six of us who like to think of ourselves as veteran college trainers are daily learning new tricks in the job of keeping the navy's future O'Hares, Gaylers and Thaches in top-fighting trim.

Prevention of injury is naturally a matter of foremost concern, because every last one of these fledglings is bound on a career of destiny, and even a few days of time lost through our carelessness might spell disastrous delay to some important aerial mission of the future.

Our need for vigilance is the more intense because the navy did not "pull any punches," when it mapped out the laudable pre-flight system of conditioning the world's finest, fittest, fightingest. If there is a spot for "softies" anywhere in this program, it is yet to be uncovered. Football, basketball, soccer, gymnastics, boxing, wrestling, man-to-man combat—these are only a part of a cadet's daily round of necessary body-hardening activities which keep him constantly on the move with all burners burning.

Recognizing the inherent hazards involved in maintaining such a pace, our staff of trainers has been constantly co-

ONE of the most respected athletic figures in the South, Hank Crisp left his job as assistant athletic director at the University of Alabama to devote his wide experience to the service of his country. A background of twenty-one years at Alabama, spent variously as head trainer, line coach of football, and head coach of basketball, track and baseball, is now turned to the benefit of our Navy's future air fighters.

operating with the athletic instructors in ways and means of holding injuries to a minimum. Our success, I think, has been largely due to a mutual willingness to learn from each other. Where one trainer has demonstrated superior technique in treating a specific type of injury, or in improving a preventive, the rest have been quick to make their own favorite methods conform.

In preparing this first article of a series concerning some of these techniques, I have elected to describe the ankle wrap—one of the most important and most widely used safeguards in any athletic program.

The wrap which has been adopted here by the entire trainer staff has proven itself under the most trying conditions. Bearing in mind that the cadet is going full tilt through a variety of body-contact sports at least four hours a day, its record of effectiveness in better than 99 per cent of all cases will seem the more remarkable. The occurrence of ankle sprains or shin splints among wearers of the wrap has, in fact, been virtually negligible; arch trouble has also been greatly minimized. For these reasons, each cadet on admission is issued two eight-and-a-half-foot rolls of two-inch cotton webbing with which to have his ankles wrapped daily in the training room. The webbing is laundered over the week-end.

The accompanying illustrations will serve to demonstrate how the wrap is applied. Note that a woolen sock is always worn under the wrap to prevent blisters and excessive tightness. As seen in Illus-

tration 1, the ankle is first turned to the inside with the great toe pointed down and is held in this position throughout the procedure. This shortens the outside ankle joint and prevents the ankle from twisting to the outside where most sprains occur.

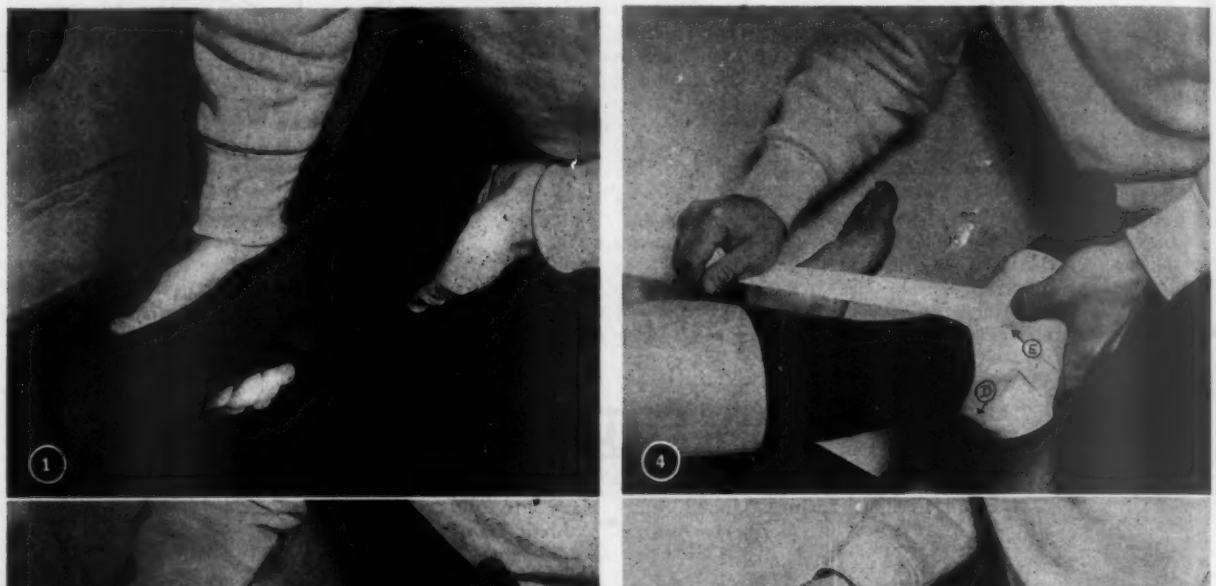
Illustration 2. Take two clockwise turns around the longitudinal arch, always pulling toward the inside.

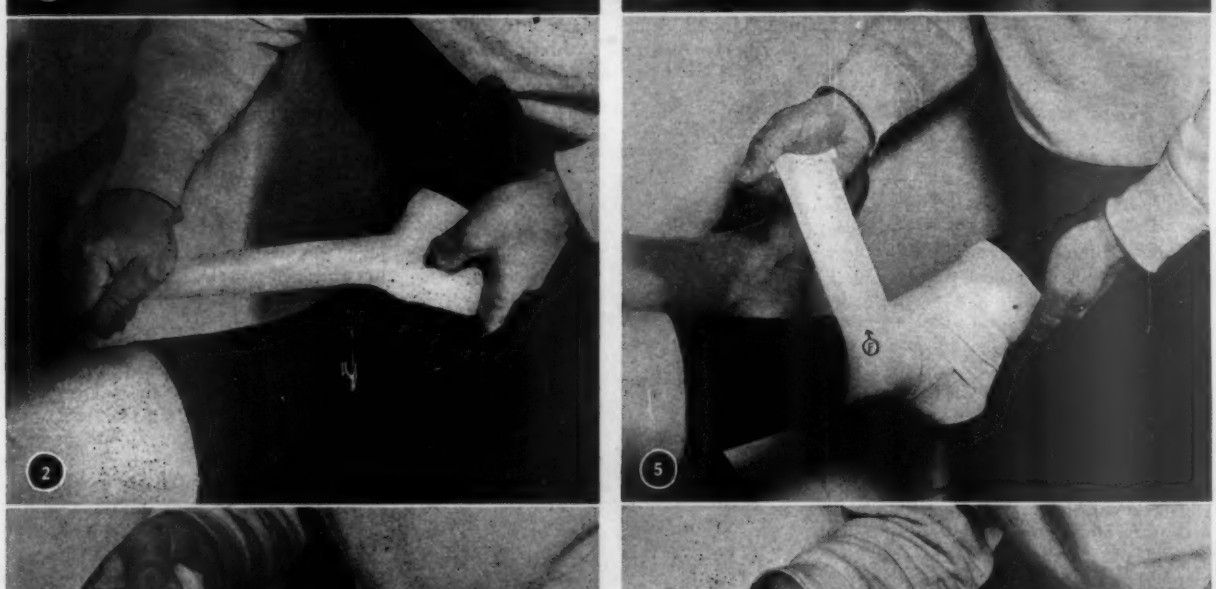
Illustration 3. The wrap is next taken to the inside, around the heel to the outside, and then under the heel to the inside.

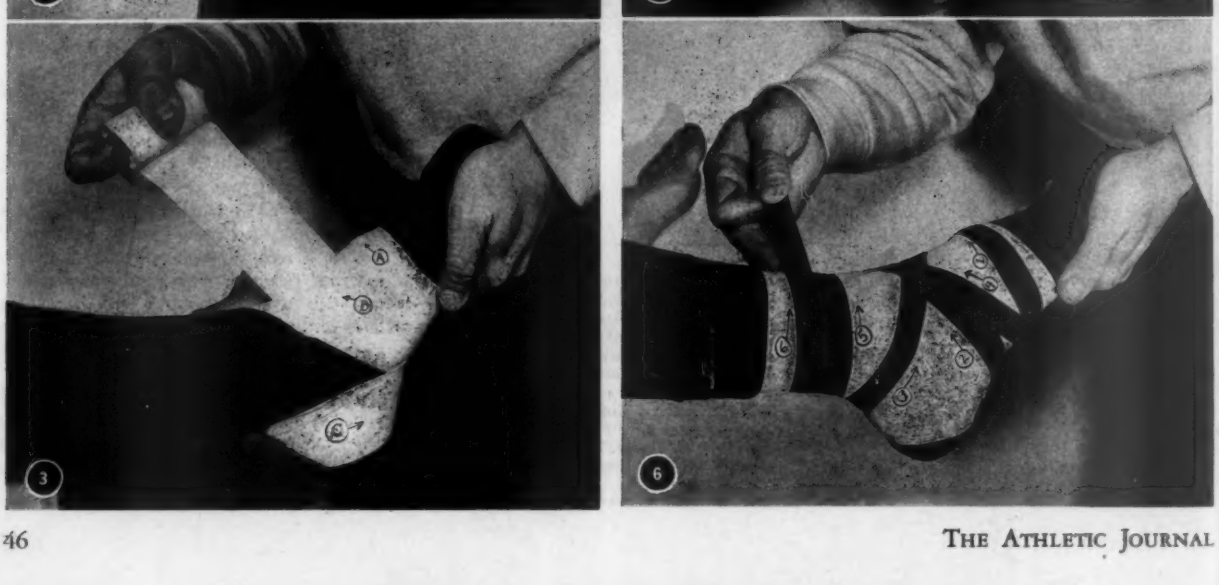
Illustration 4. The wrap has here been carried outside around the joint to the inside and under the heel.

Illustration 5. Two complete turns are then made from the outside to the inside around the articulation (above the joint).

Illustration 6. The whole wrap is then anchored with one-inch adhesive. An additional adhesive strip (not shown here) is finally placed from the heel stirrup to the top of the instep to keep the stirrup from slipping off the heel.







Cross-Country Running is the Oldest and Best Physical Conditioner

By Mike Ryan

Track Coach and Trainer, University of Idaho

THERE is no sport or exercise, that even approaches cross-country running and its affiliates in producing the rugged, superb physical condition that is necessary in the attainment of vigorous manhood, excellent performance in athletic competition and the toughness that is essential to make a full contribution to the armed forces or to the war effort.

Just as the name implies, cross-country running means running across the country as it comes, that is, through fields, up hill, down dale, jumping ditches, vaulting fences, etc. Its affiliates are, long distance running on the track, field or road, hiking or long distance walking and the old fashioned games of hare and hounds and follow the leader.

Cross-country running is as old and as natural as human life itself. Our ancestors in the early ages before roads and methods of transportation were devised, had to do their travelling on foot; they had to run down and slay wild animals for food, and ride "Shanks mares," in order to be successful in the battle for survival.

Therefore, it is natural for all of us to be able to run cross-country or to travel long distances on foot and it should be our natural desire to do so. The trends of modern civilization, however, have made life easier and the human race lazy and soft in a physical sense.

Running cross-country is rugged work and is the greatest developer of the vital system, the heart, lungs, stomach and legs, without which an athlete is not too hot and a mere layman is just so-so.

It also develops courage, stick-to-it-iveness and the power of mind over matter to a higher degree than possibly any other athletic endeavor. It provides continuity of action, without which perfect physical condition, stamina and endurance cannot be attained.

Almost since the beginning of organized athletic and sports competition, smart coaches and trainers have recognized the fact that cross-country running and its affiliates, road running and long-distance running on track and field, are the greatest conditioners and foundation builders. A condition foundation gained through the medium of cross-country running and its affiliates gives an athlete what it takes to go through a strenuous full schedule season at full speed and top form.

Practically all champion boxers and prize fighters do road work as one of their most important training stunts.

Major league baseball players do a great deal of long distance running on their spring training trips. It has been said that John McGraw, famous manager of the New York Giants, used to send his charges ten miles a day during their spring training trips.

Many college football and basketball coaches require their players to take long distance hikes and runs as a pre-season conditioner, and during the season, they require them to run laps on the track every day to develop their legs and wind.

Track champions of all kinds usually do some sort of cross-country running every fall in their hey-day. Quarter milers, half milers, milers, two milers, etc., usually go in for cross-country running in a big way. Some of them develop into great cross-country runners as well as track performers. It is the backbone of their training system. There would be no nine-minute two milers or four-ten milers, without cross-country running. It is the training which developed such world famous track stars as Gregory Rice, Leslie Mac Mitchell, Glenn Cunningham, Gunner Haag, and Paovo Nurmi.

Many performers in other branches of sport, artists, singers, actors, business men, etc., take regular cross-country and road runs, long hikes, etc., in order to retain the fine physical condition that is necessary to keep them at the top of their professions. It has always been said that Willie Hoppe, the world's greatest billiard player, who has been a champion thirty-five years, has always been an inveterate trainer and has gone in for long-distance hikes and road running during his career.

Cross-country running is very popular in the East and Middlewest. In spite of the fact that the sport is not accompanied by ballyhoo and fanfare it is estimated that 100,000 college and school boys and club men engage in cross-country competition every fall. In Europe, the sport is more widely engaged in and the European runners are usually better than Americans.

In these war times, when physical fitness and condition are so important for the successful prosecution of the war effort, it would seem advisable that every possible effort should be made in this country to increase interest and participation in this wonderful sport. It would be a valuable addition to the athletic or physical activities of every university, college, high school, and athletic club in the United States. I feel certain that it would greatly improve the condition of the men in our armed forces, if it were given more encouragement and a prominent place in the physical fitness program of the army, navy, marines and the air corps.

There is no limit to the number that can participate in cross-country training or competition. We have had races in this country with as many as twelve hundred competitors. Thousands can be accommodated in any section or city. No elaborate gymnasia or field houses are necessary. Open fields, roads, parks, golf courses, or what have you, and willing runners are all that are needed. Even weather does not matter. The hardy hill-and-dale boys can take it in sunshine, rains, snow or mud.

It is the most economical sport in the world to participate in. All the equipment that is needed are a pair of running trunks, a running shirt, and some kind of a pair of shoes, a stout heart and a willingness to work.

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Announcements

Army and Navy Insignia

Posters showing the insignia of the Army and Navy may be secured by writing the Witchell Sheill Company, 1635 Augusta Blvd., Chicago.

This company is continuing in this issue a roster of the college and university coaches now in the various services. It is not the intention to omit any names and the company will appreciate information from athletic departments regarding members of their staffs.

Taping Films

Taping Technique a, 16 mm film—both sound and silent—is available for bookings. Trainers and coaches should address their requests to The Bike Web Company, 41 West 25th St., Chicago.

Handbook on Athletic Injuries

If you haven't secured your Handbook on Athletic Injuries, communicate at once by card or letter with The Denver Chemical Mfg. Co., 163 Varick Street, New York City.

Seal-O-San

If you have not received the 1942-1943 edition of Seal-O-San Basketball Coaches Digest, write for your copy at once. Play diagrams, illustrations, articles on offense, defense, and fundamentals are included in this attractive Digest. Address your request to Huntington Laboratories, Inc., Huntington, Indiana.

Basketball Ratings and Forecast

For information regarding the Dick Dunkel Basketball Rating and Forecast for the 1942-1943 season, write the Converse Rubber Company, Malden, Mass.

Footwork in Sports

The fifth of the Series on Footwork in Sports, the first in the Boxing Series, appears in this issue (page 29). Copies of this series and those on football and basketball may be secured by writing John T. Riddell, Inc., 1259 Wood Street, Chicago.

The Observer

Do you have your name on the Ivory System mailing list to receive the monthly issues of *The Observer?* Full of helpful suggestions on the care of athletic equipment, so very important these days. Write the Ivory System, Peabody, Mass.

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